

The Australian COMMODORE and AMIGA REVIEW

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The Australian Commodore and Amiga Review

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Editorial

Commodore are going to hold an Amiga show at last. Well, Commodore Australia isn't actually organising it, but they've set the ball rolling and the Hunter Group, the same people who handle the big American World of Commodore Show, will be doing all the hard work.

Let's hope that *World of Commodore* becomes an annual event - pity it hasn't happened before.

Commodore are now sanctioning *World of Commodore*, providing close support to retailers and distributors participating at these shows, and placing the most emphasis on Commodore exhibiting. Australia will be no exception, with the launch of CDTV promised, along with some interesting seminars from overseas visitors.

CDTV is really hotting up. It should retail for around \$1495, and a number of CD products will be available at the launch. Hopefully some truly Australian packages will appear - how about a Multimedia Burke's Back Yard, or an Australian Encyclopaedia? Developers here seem to be short of support to make it happen.

Many are awaiting a CDTV version of *AmigaVision*, however the player will now include only 1MB of RAM, which makes me wonder how any *AmigaVision* programs will run when the program itself would chew up a huge slab of this memory. We shall have to wait and see.

Commodore will certainly have quite an education task ahead of them to help consumers see that what appears to be nothing more than a very expensive CD player is indeed one of the potentially most revolutionary home entertainment products since the birth of the home computer.

Just prior to the show we will be able to bring you an up-to-date review of CDTV and some of the applications which will be available. Although we could run a preview right now, we figure it's better to wait until we are closer to the real thing.

During our own preview of the unit, I asked Commodore about a possible upgrade path for existing Amiga owners. The answer was a definite no. Strangely, I had already heard that such a device was under development, and indeed at the recent CES show in America Commodore showed off the A690 (working title) - a CD-ROM which slots into the A500 expansion port and is compatible with CDTV. Surely such a device would be in great demand?

Commodore are also supposed to be working on a model for A2000/3000 owners. Speaking of which, it is now confirmed that an A3500 tower model will soon be available, with room for more internal drives.

Workbench 2.0 is still "coming real soon now". We have seen very stable almost finished versions. Many products have been upgraded to work with version 2.0, including *Deluxe Paint III* - look for the Workbench 2.0 compatible stickers next time you're in a computer store.

Well, this month we've reviewed some significant product upgrades, compared disk utilities and all our regular columns are with us. For more on CDTV check out Phil Campbell's Entertainment Section.



Andrew Farrell

GVP Announces a Technological Breakthrough...

SERIES II™

THE NEXT GENERATION

in SCSI and RAM Controllers for the A2000®

IMPACT

Series II

GVP's New SERIES II A2000 SCSI and RAM Expansion Controllers provide the ultimate hard disk and RAM expansion solution for the A2000. Choose from two new models:

The Series II A2000 SCSI "Hard-Disk + RAM-Card"

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- NEW **FAAASTROM™** SCSI Driver offers optimum performance and includes such features as:
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- ✓ Fully implements Commodore's Rigid Disk Block (RDB) standard as well as the new DIRECT SCSI interface standard.
- ✓ Removable media drive support. Automatically senses cartridge changes and informs AmigaDOS, ensuring safe and reliable use of removable media SCSI drives.
- ✓ Allows Direct AUTOBOOT from Fast File System Partition.
- New INTUITION COMPATIBLE SCSI installation and "tuning" utility included. Major features include:
 - ✓ ICON and gadget based INTUITION interface.
 - ✓ Bad Block Remapping of hard drives.
 - ✓ Auto or manual hard drive partitioning and AmigaDOS formatting.
 - ✓ Read and modify existing RDB parameters on hard disk.
 - ✓ Simplest and Easiest SCSI installation in the industry.
- Low parts count (through VLSI Integration) EQUALS: lower power, higher reliability, longer life and ultimate PRICE/PERFORMANCE! See TRADE-UP offer.

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- Same as above but without the 8MB FAST RAM capability.
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- UNBEATABLE VALUE. See \$199 trade-up offer!

GVP's New **FAAASTROM** SCSI driver and installation software is also available as an upgrade kit for GVP's original IMPACT SCSI controllers, for ONLY \$89.95. Offers major performance increase over previous GVP AUTOBOOT EPROMs.

New Series II 48MB Removable media hard disk drive. GVP now also offers the NEXT GENERATION removable media hard disk drive which offers increased capacity (48MB formatted) and major technological advances in cartridge air flow filtering design and robustness. Call for details.



SCSI TIMES

The ULTIMATE Trade-Up Offer???

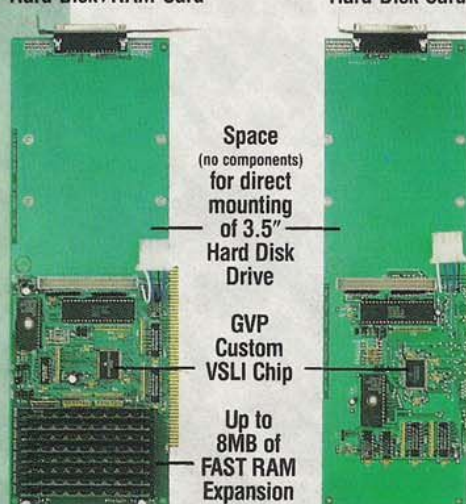
GVP today introduced its new Series II product line and announced a bold new trade-up program, which is certain to further bolster GVP's dominant market share in the Amiga hard drive market.

Details of GVP's new TRADE-UP program are as follows:

- For \$199 plus \$6 for shipping (Aus only) end-users can trade-up to the new GVP Series II SCSI "Hard-Disk-Card" (without drive) by simply sending in their present SCSI controller (from ANY manufacturer) together with a money order or certified check, payable directly to GVP.
- All trade-in controllers must be sent to GVP FREIGHT PREPAID.
- Owners of any GVP or Commodore SCSI controllers, are eligible for an additional \$10 rebate, if they trade-in a FULLY FUNCTIONAL and working controller. These owners need to submit a certified cheque/money order for \$195 only.
- For an additional \$89, existing controllers can be traded-up to the new Series II "Hard-Disk + RAM-Card," which includes the 8MB FAST RAM expansion capability, populated with ZERO RAM.

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Ram Rumbles

AMIGA SHOWS

Australian Amiga Users Association Second Annual AmiForum - June 1st

The A.A.U.A. is holding another of its successful Amiga shows on Saturday, 1st June 1991. The venue is the Parramatta Town Hall in Sydney. Last year over 1,000 people streamed through the doors - not bad for a user group function!

This year the group is expecting even more to turn up and see the stands from local distributors, retailers and suppliers. The doors will open at 11.00 am. If you need more information regarding exhibiting, write to P.O. Box 389, Penrith, 2750.

Launceston Computer Exhibition - April 13th

Tasmania's Amiga Users Group are also organising a computer show to be held on Saturday April 13th from 10 am to 5pm in the Kings Meadows High School gymnasium in Launceston. Around 700 attended last year. All brands of home computers will be represented. Watch for information in local newspapers.

For more information contact David J Benn, TAUG on (003) 317 680.

World of Commodore ★ July 12th-14th ★

Sydney's Darling Harbour will be host to the Word of Commodore exhibition, to be organised by the same people who run the United States based show be the same name.

The show will be the launching platform for CDTV, which will be available the same month from retailers for around \$1495.

Commodore are planning to hold a number of seminars for resellers, developers and end users at the show. Some overseas and local keynote speakers will be presenting papers on a number of Amiga products and applications. Entry will cost around the same price as a theatre ticket.

For information regarding exhibiting contact Howard Needleman at The Others on (02) 906 5088.

USER GROUP UPDATES

First of all, a special thanks to all those user groups who continue to keep us up to date with their latest newsletters and group activities. Many enquiries for club information which come through our office are directed your way.

The user group listing which appeared in the 1991 Amiga Annual is currently being updated. A new complete list will be published in our May issue. If you would like to add a new group to the listing, or the details published in the Annual were incorrect and you haven't already informed us since then of changes, please do so now. Send your club details to ACAR, PO Box 288, Gladesville 2111.

User group libraries

On another matter, we have received several comments from both existing and potential group members on the matter of club libraries. Apparently some are of the opinion that these libraries are not providing the service they suggest, but are in fact a great source of easy to pirate software available for loan by people who join clubs for very little other reason.

Comments from club presidents or others who may like to dispute or share this view are invited, as it will be the subject of a future main story in ACAR.

NEW CLUBS and Updates

Gladstone G.R.I. Computer Club
Catering for Amiga, Commodore and IBM.

Meetings: First Monday of each month, at 7.30pm in the Gladstone G.R.I. building. Workshops are held on the first Saturday after the monthly meeting at the same venue from 10.00 am to 3.00pm. Member-

Continued on p6

UPDATE COLUMN

Thanks very much to those of you who, having received the new updated version of CRICKET AMIGA, were kind enough to ring and write to Pactivonics to tell us how pleased you were with it. For those of you who have not yet purchased it or have not yet sent in for the upgrade, please do so as CRICKET AMIGA is really a fabulous game, especially now all the bugs have been ironed out.

As there is not much happening on the business front with Amiga or C-64, I thought I would concentrate on games and list here our new **SOLID GOLD TOP 10.**

CRICKET AMIGA

Great arcade simulation of both limited overs and Test cricket. Loads of options and great game play!

LOOPZ

A brilliant puzzle type game - so brilliant that it has been banned from the Pactivonics' offices due to the amount of time we all spent playing it!

ACTION STATIONS

ACTION STATIONS is a comprehensive naval combat simulator covering the years 1922-1945.

A PREHISTORIC TALE

A PREHISTORIC TALE is a "platform and ladders" style game in the classic mould.

INSECTS IN SPACE

A shoot-em-up with a difference, your aim is not to kill everything in sight. Your objective is to save babies from being abducted by mutant insects.

TOWER FRA

Take control of an entire airport, departures, landings, scheduling, queuing the lot; and try and keep them apart!

VORTEX

This would have to rate as one of the most novel concepts ever for a game. Action and strategy at the very edge of the universe.

BLITZKRIEG

BLITZKRIEG is a simulation based on the German Army's last push of World War II. It uses advanced artificial intelligence to simulate accurate wartime conditions.

WHITE DEATH

WHITE DEATH places you on the Russian Front in 1942. It introduces a new artificial intelligence system to war gaming, with unparalleled realism.

HELTER SKELTER

This is one of the simplest games ever seen on the Commodore 64, but you just try to stop playing it!!

P.S. I tell a little fib, there is a great new educational programme called HOORAY FOR HENRIETTA on Amiga and we now have PROTEXT V.5 for the Amiga as well.

Beauty and Functionality Redefined

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The Next Generation in Amiga® 500 Add-On Peripherals

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Same high-tech custom VLSI and
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Unique new "Mini-Slot"™ brings out
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functionality.

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Includes internal fan to keep you cool
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Internal RAM Expansion up to
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Custom injection-molded styling
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State-of-the-Art

New 1"-high internal hard disk drive;
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Provides no-compromise hard disk
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Seeing is Believing

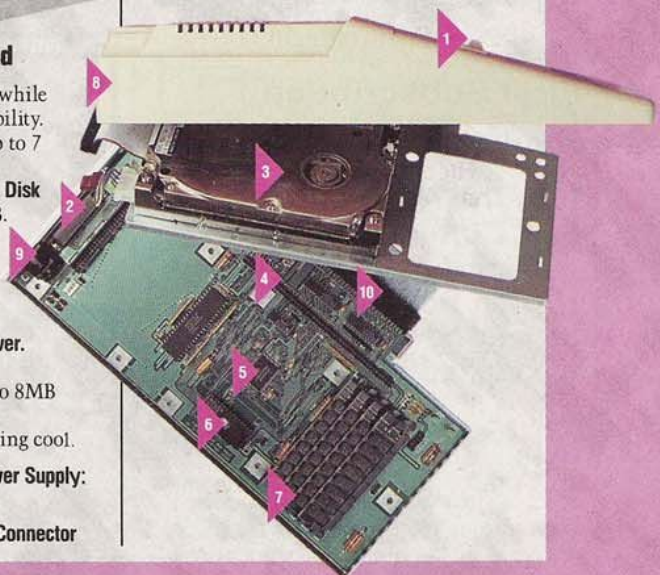
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- 4 **"Mini-Slot":** For future expansion options.
- 5 **GVP's Custom VLSI Chip.**
- 6 **GVP's FAAASTROM SCSI Driver.**
- 7 **Internal RAM Expansion:** Up to 8MB
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- 9 **Dedicated Universal Input Power Supply:** Included.
- 10 **Reinforced 86-PIN Card Edge Connector**



GVP

Educational pricing program now available.

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For information call Dave Franklin on 079 72 3083 or the secretary, W. J. Hughes on 079 72 3057.

Amiga & Commodore Club, Morley

New contacts for the renamed Morley Commodore User Groups are:
Mary-Ann Winnett on (09) 279 7143 or Terry Shortman on (09) 249 5825
The club meets once a week on Thursday at the Eric Strauss Community Centre, at Hampton Senior High School, Morley.

Australian Amiga User Association Inc.

One of the most active groups in Australia (see show information above) - here's the current information relating to this growing group:

P.O Box 389, Penrith, NSW 2750

President - Gary Colligan (627 1201)

Secretary - Bob Bliss (670 5659)

Meetings - Monthly Open Days - Sunday 12 noon to 5pm at St Clair Autumnleaf Community Centre, Autumnleaf Parade St Clair. Different topics each month.

BBS: AmiOz 627 4442 SYSOP: Gary Colligan. 24Hrs - Use JR-Comm for best results. Supports Skyline/Skypix.

Magazine: Amiga Australia.

City Amiga Interest Group, Brisbane

Monthly meetings on the third Wednesday of each month at 7.30pm, at the Christian Life Centre complex, corner of Sydney and Lamington Streets, New Farm, Brisbane. Regular tutorials are held, with emphasis on the new owner. For more information contact Adrian Royce on (07) 254 1895 or write to 237 Harcourt Street, New Farm, QLD 4005.

Newcastle Commodore User Group

4/13 Smart St, Charlestown, 2290.

Contact: Sue on (049) 47 1118 or George on (049) 57 4271

Meetings are on the fourth Tuesday of each month in Charlestown Public Library Meeting Room, Ridley Street, Charlestown at 7.00pm

For more User Groups see our 1991 Amiga Annual.

Look out for the
AMIGA ANNUAL
1991

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GVP SERIES II A2000 SCSI Hard Card + 8MB RAM Controller. (HC8/xx) (0K)

Series II A2000 HC8/52Mb Quantum \$1195 (New 1 inch high mechanism. 19ms access time)

Series II A2000 HC8/105Mb Quantum \$1395

Series II A2000 HC8/170Mb Quantum \$1750 (15ms access time)

Series II A2000 HC8/80Mb Seagate \$1250 (Deal of the year)

GVP SERIES II A500 HD+ (SCSI controller, 8Mb RAM Expansion, custom mini-slot, perfectly matching case)

Series II A500 HD8/40Mb Fujitsu \$999

Series II A500 HD8/52Mb Quantum \$1250

Series II A500 HD8/105Mb Quantum \$1786

GVP A3001 ACCELERATOR

\$2600

*68030 28Mhz 68882 28Mhz

*4Mb 32-bit wide RAM (nibble mode)

*AT hard disk controller

All products are in stock
\$10 overnight shipping (Australia wide)

12 months warranty on all items
24 months on Quantum Hard Drives

Data Flyer SCSI Interface

Introducing the DataFlyer - offering great performance at a cost attractive price.

FEATURES

- AUTO-Booting
- AUTO-Install software for super easy formatting
- Non DMA design eliminates DMA problems - Supports Fast File System (FFS)
- Amax Compatible
- Auto-Diskchange for Syquest
- Mouse button defeats AutoBoot

COMPATIBLE WITH ALL MAJOR HARD DRIVES.

DataFlyer A2000 45Mb Seagate \$795 23ms

DataFlyer A2000 40Mb Quantum \$895 19ms

BASE Board (0-6Mb RAM for the A500)+Clock

- Simple "Plug-in" installation
- Works with Fat and Fatter Agnus
- 4 Megabytes contiguous memory
- 6 Megabytes contiguous memory optional
- Memory may be installed in 1/2Mb increments
- Multi-Layer construction means it:
 - Has perfect data integrity
 - Works with any manufacturers DRAM
 - Works with any combination of DRAM speed (60ns-150ns)

BaseBoard 0Mb \$249 - 2Mb \$449 - 4Mb \$649

What they said...

If you want more than the essential 512K RAM upgrade for your A501 slot or if you need Super Agnus support, the Baseboard system is the way to go.

John Wolfskill
Amiga World
Senior Writer, Technology

Notepad

Commodore's making money again

The international company behind the range of Commodore computers we all have crammed in our bedrooms is well and truly in the black. Fortunes are looking up, with share prices climbing as product announcements such as CDTV and the success of related products such as the Video Toaster continue to excite investors.

Commodore International announced a significantly increased sales and profit for the second quarter ending December 31st, 1990. Sales are up 24%, and net income has tripled. Let's hope we feel some of the benefits of all this extra cash in the form of better service.

Clean power

Technicians recommend some form of surge suppressor for everyone running a

home computer to protect from the spikes which result from dish-washers, clothes dryers, pool filter pumps and the like. These can damage chips, cause hiccups that lead to information loss, and gradually damage your computer.

The SP-560E Main Filter solves that problem. The board provides five filtered sockets and also includes a very robust single on-off switch. We've had two of these units running in the office for some months. On several occasions they provided protection from power variations which made the light flicker and unprotected machines reset. RRP of the board is \$49.94. For information try your local dealer or call (02) 427 1861.

SoftClips 1 & 2

If you're after high quality bit-mapped clip art, these disk could be the solution. Ideal for

WYSIWYG wordprocessors or dot-matrix DTP. Volume One contains Classic Clip with over 1000 pictures including borders, symbols, computers, planes, trains, automobiles, world maps and more. Volume Two is People Clip. On it you'll find 490 images of people in a wide variety of occupations, home and leisure situations as well as sporting activities. RRP \$109.95 each. Distributed by Dataflow (02) 331 6153.

Deluxe Paint IV

The program they said could barely be improved is due for yet another major face-lift. This time EA have finally made the step into the world of HAM. They've also added a lot of overdue paint features found in the equivalent MS-DOS version of the product. The menus have been upgraded to reflect Workbench 2.0's look and feel. There's some improved animation features and a number of extra dither and fill functions. Watch for a release around the middle of the year.

24-Bit colour wars update

This year we can look forward to seeing a number of new 24-bit products (apart from the many already mentioned in this column...). Here's an update a some of the new products expected:

VideoMaster 32

Progressive Peripherals & Software (PP&S) has announced this 32-bit dual frame buffer board with 24-bit painting and 24-bit digitising capabilities. It comes with VideoCanvas 24, a real-time 16 million colour paint system. No pricing available, but looks interesting.

DCTV

Produced by Digital Creations, DCTV is a video display and digitising system, which can be used with DCTV PAINT, a new 24-bit paint program.

Macro Paint

Yet another graphics package to draw in all 4096 of the Amiga's normal colours in high-resolution

Continued on p10

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graphics mode. It records the true 12-bit colour of each pixel in fast memory and is able to read and modify 32, 64 & 4096 colour pictures, which were once limited to low resolution.

You can read in standard 24-bit scanned or digitised IFF images and convert them to Macro Paint's 12-bit high-res format. ARexx is fully supported and the program should sell for approx. US\$139.95.

Video Blender

Progressive Peripherals & Software (PP&S) has introduced this video switching system with video switching, luma-keying, genlocking, 16 million colour generation, video fading & wiping & stereo audio mixing. It has a composite video with pass-through, external synchronised NTSC RGB in, Amiga RGB in, and an internal 16 million colour generator. Seems to be a pretty powerful program, with a powerful price at US\$1295.

NEW PRODUCTS

AE'S Send-Fax

This is an option of the company's DataLink modems that will allow users to fax text and graphics from the screen to standard fax machines. Coming later will be receive-fax capabilities as an option for the modems. More info: Applied Engineering, P O Box 5100, Carrollton, TX 75011. Tel: 214 2416060.

Atari Emulator

Yes, but why...? If you must, you can - called ME-DUSA from German firm Combitec is a card for the A2000, and all you need is a copy of the operating system TOS. Said to work with all ports and peripherals including some hard disks. You can install the Atari

side on a hard disk partition, assign Amiga drives to it, adjust the video display, etc.

Draw 4D Structured Drawing and Animation

This is a 3-disk set application with a 170-page manual requiring 1 meg of ram. Described as a "multi-dimensional" (a word that itself has multiple dimensions these days) structured drawing/animation program for DTP and video.

Drawings consist of polygons which can be turned into "path" polygons which have moving and rotation capabilities. All animations are saved in ANIM format (which one??), while drawings can be saved as IFF or Pro Draw's Clip format to be edited as Bezier objects, ie, objects which can eventually be printed out to high-res Postscript printers, in up to 256 levels of grey.

Price about US\$249. More info from: Adspec Programming, P O Box 13, Salem, OH 44460, USA. Tel: 216 3373325.

Keywhiz for the Handicapped - No Keyboard

Seems to be software which does away with the keyboard - use a joystick or any other custom input device to enter data. All keyboard keys are supported, and it costs US\$40. Info from: Integral Systems, P O Box 31626, Dayton, OH 45431 USA. Tel: 513 2378290.

Significant portions of this months Notepad were contributed by Tim Strachan, Editor and Publisher of Megadisc, the bi-monthly magazine on a disk

UNIX PRODUCTS

X Windows

Dale Luck, one of the Amiga's original designers, was and is the main 3rd party Unix/Windows developer for the Amiga. Quite some time ago he brought out X-Windows Version 11 Release 3 (or X11), an environment for running applications transparently to any networks and operating systems in use. It's an international standard and is supported on most workstation setups. The beauty of it is that programs can be used on your computer though they're actually running on a remote computer via networking.

He's since updated the software, and also released the X Windows System Programmer's Toolkit For The Amiga (Release 4.0C), which provides all the tools necessary to develop applications that take advantage of X11 for the Amiga. Set up for use with Lattice C, this is your passport to fame in the world of Amiga Unix.

Minix - a small Unix for the Amiga

MINIX 1.5 is a new version of an operating system that is very similar to UNIX. MINIX has been written from scratch, and therefore does not contain any AT&T code - not in the kernel, the compiler, the utilities, or the libraries. For this reason it can be made available with the complete source code (on diskette). It runs on the IBM PC, XT, AT, PS/2, 386, and most clones. Versions are also available for the Atari ST, Macintosh, and Amiga.

This version (1.5) is a major improvement over all previous releases, with many new features, fewer bugs (hopefully), much better performance, and prop-

er documentation. The old versions have been in widespread use all over the world for 3 years. There are probably tens of thousands of users.

MINIX 1.5 FEATURES (IBM, Macintosh, Atari, and Amiga versions):

- System call compatible with V7 of the UNIX operating system
- Full multiprogramming (multiple programs can run at once)
- Kernighan and Ritchie compatible C compiler
- Shell that is functionally identical to the Bourne shell
- Five editors (emacs subset, vi clone, ex, ed, and simple screen editor)
- Over 175 utilities (cat, cp, ed, grep, kermi, ls, make, sort, etc.)
- Over 200 library procedures (atoi, fork, malloc, read, stdio, etc.)
- Spelling checker with 40,000 word English dictionary
- Full source code (in C) supplied on diskettes (OS, utilities, libraries)
- Easy-to-read manual telling all about MINIX and how to install and use it

MINIX 1.5 is being sold by Prentice-Hall. The product number and price are as follows: MINIX 1.5 for the Amiga (0-13-585043-6) US\$169 - Sales tax and shipping are extra; Prices are slightly higher outside the U.S. All versions include the executable binaries, a detailed manual, the complete source code (on diskettes), and an attractively typeset, cross-referenced listing of the operating system code.

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PageStream 2.1

The Power of DeskTop Publishing

Pagestream is one of the most feature packed desktop publishing programs around.

In the early days it suffered from reliability problems and desperate upgrades which solved one glitch only to introduce new ones. The latest release of the program has finally sorted out the worst problems.

From the back of the box, *Pagestream 2.1* appears to be a very powerful package. It is a little cheaper than its closest rival, *Professional Page* - but is it really as professional, or is *Pagestream* just for fun?

Since producing the first issue of *Professional Amiga User* magazine in July last year, I have been churning out vast amounts of Amiga published newsletters, advertisements and forms for all sorts of clients. Some of these were just experiments to see if the Amiga could really do it, others have turned into regular paying jobs. The Computer Spot ads in this magazine are one example.

With all the new features *Pagestream 2.1* offered, especially in the area of graphic importing and fonts, I actually went out and purchased a copy. As a rule magazine editors don't end up buying a lot of software - most of it arrives for free so that we can review it. So, here I am paying hard cash for a package that sounds great and judging from an earlier version I looked at, appeared to handle large volumes of text faster than *Professional Page*.

Although we've reviewed *PageStream* in *ACAR* before, that review goes back so many versions, and was printed so long ago, I thought it best to start from scratch and put *PageStream* right through its paces.

Getting Started

Inside the box you'll find three disks, a hefty ring-bound User Manual and an excellent QuickStart guide - both are smartly designed and presented.

Installation is reasonably straight forward. If you're a floppy-based user, the package is ready to run. I wouldn't recommend this sort of configuration, as some functions are quite disk intensive. For hard drive based systems, the install program requests a volume and the rest is automatic. There are no weird assigns to add to your startup-sequence.

The box recommends 1MB of RAM. Once again, I'd recommend more. If you plan on doing anything remotely complex, the more RAM the better. Pictures, fancy fonts and pages of layout take up lots of memory. You'll also find you can be more productive if you have room to run a couple of useful programs with *PageStream* such as a good text editor and maybe a paint program.

So, you're up and running. The screen is flickering horribly and you're wondering if you should have bought something else. *PageStream* defaults to an interlaced display. Un-

like *Professional Page*, you cannot alter the number of colours, or toggle interlace once the program is running. Quit and select the program icon. Click on INFO from the Workbench menu. From this window you can scroll through the tool types. You can select a number of default settings, some of which should have been placed in the program. Anyhow, you may want to change Interlace=YES to Interlace=NO!

Inside *Pagestream*, many far more trivial settings can be altered and recorded so that they will be loaded by default next time you run the program. This is an excellent design feature which many more programs should take note of.



Opening a Page

Before you can start creating a design, you'll need to open a NEW page and select the page size. A wide range of default sizes are included, or you can define your own page size. You must also select whether the page will be landscape or portrait. If you forget to do this now, you can't change it easily later.

Although many *Pagestream* owners don't believe this, all page elements are placed in a box just like any other DTP program. The difference is, *Pagestream* defaults to not showing you all boxes. There are two types of boxes in *Pagestream*; objects and columns. You can see the box around a column by choosing VIEW COLUMN. The boxes around objects show up as soon as you click on them.

Getting some columns on the page

for text is very quick and easy. From the layout menu there is a create column option which displays a window with gadgets to define the column settings for a page or range of pages. You can set the margins, gutter (space between each column), and whether or not the columns are to be linked so that text will automatically flow from one to the next. A powerful function.

Pagestream does not just create column guides but makes actual column boxes in the correct position. Once set in place you cannot use the columns option to alter these boxes, but instead you simply resize them as required. Additional groups of columns can be overlaid on an existing set. The columns feature speeds up the design of many types of projects.

There are two other ways to provide a quick guide to placing page elements; grids and guides. Using the grid option, you may define a grid size, or choose from a group of presets. At the intersecting points you may choose to have a point displayed. These points can be 'magnetised' using a snap-to-grid option. Boxes placed near a point will automatically snap to the point. Very handy for designing forms, and placing key lines.

Guides are similar, however they are single vertical or horizontal lines. The snap to guides option works in much the same way as the grid option. Guides are better for helping keep odd sized boxes aligned along a particular line.

Working with Pages and Objects

Pages may be inserted, deleted and moved, and master pages can be designed. The elements on this page will show through on every page in the document. Your view of the design may be selected from six predefined levels of magnification. Numerous page guides can be displayed if required, or you can stick with a true WYSIWYG display, clear of any boxes or guidelines.

Objects and columns can be moved, resized, cut and pasted from one place to another, across documents or pages. Several documents may be open at once, each in its own sizable window on the work area. The tool box containing the main editing gadgets can be moved around the screen to facilitate your particular preferred work arrangement.

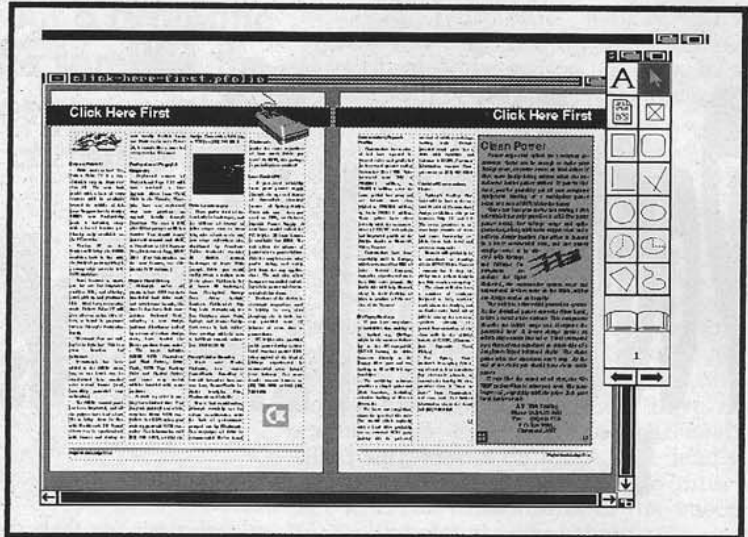
Resizing a column will cause the text to reflow into the new shape. Text placed in an object box will be

stretched to fit the new size, allowing some bizarre distortions to be created - some useful, some distasteful. Columns and object boxes may also be rotated, twisted, and slanted, further adding to the potential variations possible. You can set the position of an object box, and scale the box using percentages. One very smart feature is setting the box's position from the right edge of the page. One missing function is being able to create margins in the box. Using the text format menu you can set left and right margins, but not top and bottom.

Pagestream handles text in a speedy fashion compared to some other products. Of course, the rate at which fonts are rendered to the screen varies immensely depending on the type of fonts you're dealing with. Pagestream 2.1 can handle no less than four font formats including Adobe Type 1 and 3, Compugraphic, and PageStream's own format. This opens the door to a huge range of styles.

A utility is included to use Macintosh fonts. I tested this and it worked fine. I also found a huge number of public domain Adobe type 1 fonts on Compuserve. Some of these worked fine, some wouldn't print under certain circumstances. Admittedly, this is a new feature, and not everything is perfect.

To keep track of all this different font types, Pagestream has a font manager on the font selection menu. This new window offers the ability to tell Pagestream where to find other fonts, so it is possible to share fonts between several programs which can read a particular format. It's not as promising as it sounds. I couldn't find any way to use my large range of installed Compugraphic fonts from Gold Disk, although there only appeared to be one file missing to make it happen. SoftLogic promised a fax to help solve this problem. A week later I had heard nothing.



Pagestream font handling is such a complex thing - some six pages are dedicated to explaining the differences in formats and how Pagestream handles the variations. The bottom line is, you have a wide choice, but some don't work too well. There is some work to be done in this area.

Selecting a font takes place from one menu which displays the available fonts, styles and point sizes. This single menu business can be great when you want to change all the settings of text, but to alter just the style or size you need to delete the current settings from the requestor boxes first, or all the highlighted text will have the settings applied. For example, you create a document in 10 point, containing 5 different fonts. You decide to change it all to 12 point. Be careful, you could end up with a document with only one font and style and have to go back and reselect the others if you forget to unselect the font type and style. The same applies for bold or italicised designed fonts. This menu needs refining. PageStream has a search and replace function to remove and apply styles which can help in these situations.

You can also apply additional styles from Pagestream. Apart from the usual Bold, Italic and Normal you can also Backslant, Double Underline, Outline, Shadow, Mirror, Reverse and Upside Down to name a few. Even simple fonts can be made to look very different by applying these styles sparingly in headings.

Editing text in columns is fast. There's a reasonable spell checker, search and replace option and all the usual cut and paste options, as well as batch kerning and hyphenation.

Kerning pairs may be edited, as can hyphenation exceptions.

Formatting text is a little clumsy. Although there is full control over line and character spacing, and the usual selections of justification, getting the applied styles to work was a little tricky. Sometimes once you have applied a group of settings, reselecting the text and choosing the setting option reverted back to default settings. It seems you have to click once in the text before high-lighting it to get this to work properly. Some of these oddities made *Pagestream* a bit frustrating at first.

One very powerful function is the ability to create a style tag. All possible settings for text can be set and then the group named such as body, heading, or footer. When you import text you then highlight parts and simply choose from a list of tags the one you wish to apply. Tags cannot be overwritten, so they remain safely in place. If you decide to change the whole look of a large document later on, all you have to do is change the setting under the tag name.

One glitch we found was since you can't copy a page, we tended to append new pages to a document. This process replicated the tags, and you ended up with a list of tags a mile long with the same name repeated many times. An awkward bug.

Graphics

PageStream's can work with virtually all picture formats, be it standard IFF files, GIF, TIFF or ProDraw structured clip art. You may also bring in bitmapped images via a picture window which allows you to first crop the image. Once you're in the position mode, holding down the shift key as you size up the window to place the image in will maintain the correct horizontal/vertical ratio. This is a much needed feature which eliminates a lot of the pain of making sure pictures are the right size.

Pictures sit in object boxes, so everything you can do to an object can be done to image. If you have a Postscript driver selected, you can also choose the screen angle and density. I imported a number of file types without any problems. *Pagestream* did seem a bit slow at scaling bitmaps, especially when you change magnification. The on-screen representation is only black and white.

Structured graphics are handled with grace and elegance. *Pagestream*

draws clip-art in the fastest time I've seen yet - even faster than *Professional Draw 2.0*. You can also edit clip art, with a full set of editing tools. Text can be made to flow around clip art in an irregular fashion. This feature can be used to force text to flow around odd shaped bitmap images too!

Printing

At the end of the day, the output was pretty impressive. We all know about outline fonts, and *Pagestream* paved the way. Unfortunately, it no longer leads the way. *Professional Page* still makes better quality print-outs on a dot matrix printer. Of course, for serious publishing you'll need a postscript laser printer.

PageStream will handle full four 24 bit colour separations and mechanical colours. I didn't get a chance to test this feature. The colour control is rather bare compared to *Professional Page*. You can set up Pantone colours and create tints but there is no proper onscreen representation of defined colours in your document, or standard Pantone colour list to choose from. This area needs some more work to bring it up to scratch.

There were a few glitches using *Pagestream* with a Postscript printer. First of all, some of the Adobe type 1 fonts we imported into *PageStream* printed sometimes. Sometimes you had to delete the box and paste it again before the page would print. This proved to be very frustrating. *PageStream* doesn't provide any control over positioning of the page in the output area of whatever Postscript device you're using. This problem arises from anything as simple as trying to centre a design for a business card on an A4 page without actually selecting an A4 page to start with, to trying to centre an A4 page in the middle of film output on a Linotron printer. You simply can't do it. This would be especially limiting with odd sized jobs.

There is no option to rotate the output area, which can save materials and money in some instances. The crop and registration marks are not as good as *Professional Page* although there is the added benefit of the file name and page number being printed.

Setting angles or densities is clumsier than *Professional Page*. Thankfully it is now possible - essential for colour separations or outputting scans to a Linotron. Don't forget if you're comparing the two packages directly on a price, *Pagestream* does not in-

clude all the fonts you need to access the standard 35 Adobe fonts built into most laser printers. These are available on an extra disk.

Conclusions

Pagestream is much quicker than any other publishing program I have used. I believe this to be due to the fact that the program is written in efficient machine code rather than C.

We plan to continue testing *Pagestream*. At the moment I'm not fully convinced. I am impressed with the speed with which it handles large chunks of text, however some of the other power features are still a little unreliable. For professional users, you would still need *Professional Page* just in case. For home and education and just for fun, *Pagestream* is fine. It is excellent value for money.

My biggest criticism is that the program encourages poor typesetting and layout practices. Only two normal fonts are included, although oddly named, they are in fact Times and Helvetica. The manual goes to great lengths to suggest correct uses of these and the other fonts.

So many newsletters which arrive in our office produced on *PageStream* look horrible. Getting your text spacing correct is critical in making good readable layout. *PageStream* is fine when you use tags, but setting untagged text can create problems. Also, the ability to size text in object boxes tends to encourage people to break all the rules of readability by creating headings which are distorted and twisted. These sorts of features are great, but they need to be used in a very limited fashion.

Overall, *Pagestream 2.1* is a huge improvement over the earlier versions. Excellent documentation, and fabulous graphic import power. A little slow handling IFFs. Top marks for the intelligent screen refresh routines and text rendering speed. A few annoying bugs, and bizarre menu designs will frustrate some.

Pagestream is now a professional looking, well thought out package which is certainly a contender for the *Professional Page* market.

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SID vs DiskMaster vs OPUS

Combine the simplicity of Workbench with the power of a CLI and you have the principle behind every good directory utility. The three big names in full

screen, two directory disk management programs are SID, OPUS and Diskmaster.

Andrew Farrell compares all three.

Nearly every Amiga user has wished there was an easier way to copy programs, read text files and view pictures. Many discovered there was and went on to use *Diskmaster*, the very first popular commercial disk utility program. There are others too, such as *Dutils* or *Zippy*, however these do not offer the same useful two di-

rectory display or range of additional functions. The two directory display makes housekeeping simple. You can view the current source and destination directory before moving, copying, deleting or creating files. It is this feature which *SID*, *OPUS* and *Diskmaster* have in common.

The purpose of this comparison is to identify the best all round performer, the best value for money, and most importantly, touch on those features which I would like to see in the ultimate housekeeping program. Even the best package can be missing one or two vital functions.

SID is a public domain program which has been around for a year or two now. Like *Diskmaster* it offers easy file manipulation, with the added benefit of a higher degree of configurability.

Installation is a little more fiddly. To get a copy of the program you'll probably have to download an LHARC file, or buy a disk containing the files already uncrunched. Even so there are no icons normally attached to the program, so you'll need some knowledge of the CLI to make *SID* run if you plan to install it on your own Workbench or Hard Disk. There's a giant config file to deal with too - using a text editor you can define most aspects of the programs operation. A number of options can be defined using pull down menus and saved to a separate smaller config file. Why aren't all the settings handled this way?

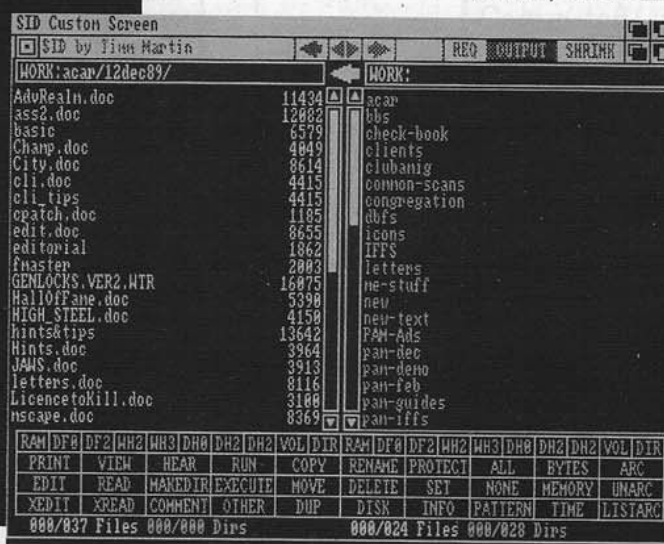
OPUS is like *Diskmaster*, offering Workbench installation. Unlike *Diskmaster*, *OPUS* has a number of relat-

ed files and also requires the ARP library which is included on the distribution disk. Installation of the program defaults to the SYS: directory - a bit frustrating if that's not where you want it. Configuring the package takes place within *OPUS* using a window containing tick gadgets and requestors - very slick.

On screen

All three programs have a distinct look and

feel. None has significantly borrowed from the other, although all work in a similar fashion. *Diskmaster* is the simplest looking of the three. All the gadgets, including device names, are located down the middle of the screen. This arrangement provides maximum space for directory listings - both *SID* and *OPUS* run the gadgets across the bottom of the screen, chewing up the directory length, but improving the amount of information displayed about each file. If you're really fussed about how many files you view, there are a couple of work



SID

Background and Installation

Diskmaster comes from Progressive Peripherals in the United States. Since its release there have been a couple of upgrades. The current version provides a full PAL display. The gadgets are placed down the middle of the screen. Installation is a snack. Just drag the icon to the drawer you wish to place *Diskmaster* in. A configuration file is recorded in the S: directory containing colour settings, and a few user configurable options.

arounds.

Diskmaster offers a small font option, which makes up for space stolen by the gadgets. All three packages will work in interlaced mode too - but you will have to tweak the colours, buy a thick screen filter or invest in a Flicker-Fixer to make this setting usable. All three programs allow some degree of screen configuration. However, only *SID* and *OPUS* provide the option to display on the Workbench screen, saving vital memory. They also have an *ICONify* function, which turns the window into an icon on the Workbench. When you need the utility again, just click on it and the icon expands back into the window with all

the contents in tact.

All three programs can be made to look very different by altering the colour palette. This is easy in *OPUS* and *Diskmaster*, but *SID* offers a completely contorted way of setting colour using sliders which provide numbers which must then be edited into the config file. A new release real soon now should solve that one.

Basic file operation

Although the bells and whistles matter, the most important thing in any package is how well it performs the day to day functions. In this case, that means copying and moving files,

changing directories, creating directories and viewing the contents of files. Also important is being able to configure how some of these operations take place.

All three program allow files to be selected using the mouse, with the option to click and drag over a range of files. The directory display I find best is having directories and files appear in separate sorted lists, directories first. *Diskmaster* sticks to this standard, *OPUS* and *SID* can be configured to work this way, with the option to have directories intermingled with files. Moving into a directory on all three is as simple as clicking on the name. Getting back up the tree is dif-

SID vs OPUS vs DISKMASTER - Feature Guide

- = Not implemented
E = External option

✓ = Yes

Due to the many options contained in these programs it was not possible to list every one, nor can we guarantee the accuracy of this list

	SID	OPUS	DISKMASTER
File Functions			
COPY	✓	✓	✓
MOVE	✓	✓	✓
DELETE	✓	✓	✓
CLONE/DUP	✓	✓	✓
RENAME	✓	✓	✓
MAKEDIR	✓	✓	✓
ALL	✓	✓	✓
NONE	✓	✓	✓
COMMENT	✓	✓	✓
DATESTAMP	-	✓	-
CONFIRM REPLACE	✓	✓	-
CONFIRM DELETE	✓	✓	-
WILD CARDS/PATTERN	✓	✓	✓
RUN	✓	✓	E
EXECUTE	✓	E	E
PRINT	✓	✓	✓
PROTECT	✓	✓	✓
SEARCH	-	-	✓
PARENT	✓	✓	✓
ROOT	-	✓	-
Error Handling			
REQUESTOR	✓	✓	-
CONTINUE	-	-	✓
Screen Options			
ICONIFY	✓	✓	-
INTERLACE	✓	✓	✓
CUSTOM	✓	✓	✓
WORKBENCH	✓	-	-
HALF SIZE	✓	-	✓
Compaction Programs			
ARC	✓	E	✓
LHARC	✓	E	✓
ZOO	✓	E	✓

	SID	OPUS	DISKMASTER
Workbench Support			
CREATE DRAWER	-	✓	-
CREATE ICON	-	✓	-
HANDLE.INFO FILE	-	✓	-
OPEN BEHIND	✓	✓	-
INFO	✓	-	-
Special			
SHOW GRAPHICS	E	✓E	✓
PLAY SOUNDS	E	✓E	✓
VIEW TEXT	✓	✓E	✓
EDIT TEXT	E	E	E
HEX READ	✓	✓	✓
HEXEDIT	✓	-	-
Miscellaneous			
PRINT DIR	-	✓	✓
ENCRYPT	-	✓	-
AREXX Port	-	✓	-
HELP	-	✓	-
DOS ERRORS	-	✓	-
BYTE COUNT	✓	✓	NOT DIRS
CLI Equivalents			
ASSIGN	-	✓	-
ADDBUFFER	-	✓	-
SETDATE	-	✓	-
Disk			
DISKCOPY	-	✓	✓
FORMAT	✓	✓	✓
INSTALL	-	✓	-
RELABEL	✓	✓	-
Configurable			
GADGETS	✓	✓	✓
MENUS	-	✓	-
DRIVES	✓	✓	✓
Status			
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FREE DISK SPACE	✓	✓	✓

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With *OPUS* you have a do-into-icons option which automatically handle .info file the same way you treat the main file. *OPUS* can also create drawers with new directories you create. Features like this show the extra thought the author, Jonathan Potter, has put into this program. All three programs offer some sort of disk format option, with *OPUS* offering an INSTALL function too.

Conclusions

At the end of the day, *Diskmaster* is the simplest to use package, with the least flexibility. *SID* is the cheapest - it's Shareware - and if you don't pay, that's cheap. If you do, *OPUS* is about the same price, offers more power, more configuration options and better support. *OPUS* could learn from a couple of *SID*'s intuitive gadgets positions. The parent gadget must be improved. If you're prepared to learn the power of the package, and buy Australian, go for *OPUS*. It's local, reliable, compatible with Workbench 2.0 and it's the one I'm using now. □

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When you first hear of the RocGen Genlock at a price of around \$300 retail, the ears prick up and the pulse quickens - especially if you're a video or graphics enthusiast. Visions of your own video masterpiece, with your name up there for all to see, flash before your eyes as you can at last afford to indulge yourself.

This newcomer is one of an increasing number of genlocks currently on the market here and is, to my knowledge, the cheapest.

In this country, genlocks mostly range from the Neriki Desktop at around \$1000 up to the Rolls Royce, VidTeck Videomaster at \$2495. Others are available overseas and Australia's own AusGen seems to have fallen by the wayside. It is a crying shame that the potential and design talent in this country is ignored by local manufacturers and we must be dependent on overseas products or manufacturers so often.

The variation in price of these genlocks mostly indicates the variation in facilities provided and can generally be taken as a guide of performance and capability. The dearer the unit, the more you get, but not always. The RocGen is a qualified exception to the rule.

Why do you need a Genlock?

But before we get too deeply in, I am sure there are some among the budding video geniuses who don't really know why you need a genlock.

A genlock is vital if you are to overlay or mix titles on video source material. Without a genlock it is impossible to produce a stable mixing of Amiga graphics and the incoming video whether from a camera or a recorder.

The genlock ensures that the Amiga screens synchronise with the video frames of the incoming video and locks them together. Without this colours smear and bleed and the picture will most likely be very unstable and a dead loss.

One word of warning though, genlocks, if not transparent when connected but not operating, can foul up such tasks as formatting disks, copying files etc. so be careful. If you get funny results disconnect the genlock for normal computer usage.

Anyway, back to business - a price of \$300 for such an instrument naturally brings out the sceptic in all of us. What's the catch, I hear you say.

While the RocGen has some limitations, which I will discuss later, it is very good value for money and simplicity itself to use.

Applications

It can be used to overlay titling or graphics or can be used to fade between video source and Amiga graphics by a simple button switching of modes. The actual transition is quite smooth and is controlled by rotating the control knob after selecting the mode of operation. It does also have a very basic script facility for text overlay on the accompanying disk.

It is claimed to operate effectively with all models of Amiga. I personally have checked it out on a 500, 1000 and a 2500 without any problems as far as the computers were concerned. The only problems were with the external equipment and one of those was my own fault.

I would not normally talk about my own failings but this instance was caused by what I feel is a short-

coming in the Genlock external power pack provided by the supplier and a limitation in the RocGen's circuitry.

You are offered a choice of using the computer power supply or an external one by a switch on the back panel. Since the Amiga 500 has very little extra capacity I chose to work with the external power pack supplied. This supply is switchable and therein lay my downfall. In transporting it to Varitek's professional studio in Parramatta where I was to test it out, the switch slipped unnoticed to 9 Volts instead of 12 Volts output.

During the tests, synchronism was shocking with bad horizontal tearing of the upper 20mm of the screen even when using the professional video recorders as sync. sources. There was a mad flurry checking the recorders without any fault found.

The unit itself has an inbuilt sync source for use when no video is available, so the Amiga display was rock steady without a video signal coming in. This however was overridden by the incoming sync. Pulses from the recorder or other source once video was input during editing.

I also found that in the fade mode there was a total lack of colour from the Amiga. Added to this the screen would blank out completely after about 20 minutes requiring rebooting of the Amiga to get a picture back. Most frustrating and embarrassing with the studio owner looking over my shoulder.

To add to the confusion, when a blanked out camera was used to provide external sync. for the recorders, everything locked up OK and test samples were recorded on a test tape satisfactorily. The only adjustment necessary in this latter case was to adjust the palette to ensure no illegal colours were used.

Incidentally the genlock comes with a disk which will allow you to display both horizontal and vertical colour bars for system adjustment.

The point with the above problem is that a single voltage supply would be better than the multi voltage pack supplied, to avoid the risk of this happening. The pack is also too wide to use on a twin point power board, it overlaps part of the area usually required for a second plug.

With an Amiga 2000 or a 2500 this problem does not occur as the computer supply is adequate for the genlock. I could not fault the stability of the picture on my 2500 whether from a recorder or live TV when using the internal supply.

continued on p26

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Testing

Strangely enough though when I tested the RocGen at a friend's place it readily accepted output from a Hi-8 video camera and locked perfectly yet gave varying stability with VHS video recorder outputs. This may have been caused by worn or dirty tape heads or even an old tape.

A similar test was carried out by Dave Mills at Computer Spot, who incidentally sell these genlocks, using a video recorder as a source with great results leaving him very enthusiastic about it.

The unit itself plugs into the monitor socket at the back of the computer, displacing the computer's own monitor, and unfortunately it does not have a second output to drive the monitor for program and screen manipulation before video editing. The only output is a composite video for connection to the recorder.

While not connected to your recorder it is possible to feed the composite signal into the CVBS input of the computer monitor for viewing. This monitor however provides a better picture than you will see on many TV receivers and this should be remembered when fine tuning graphics on the Amiga.

Monitoring of the Amiga output under working conditions is achieved either by a parallel feed to a composite monitor or by monitoring the recorder itself. The alternative is to swap cable connections while the gear is switched on, a practice not recommended if you value your Amiga. Genlocks such as the Neriki provide a cable and connector to feed the normal computer monitor which makes life easier.

The RocGen does have provision for straight through mode, feeding the Amiga signal only to the genlock composite output to allow adjustment or management of the Amiga program being used, providing your setup allows you to view it without the recorder running. It can be a bit hard on the eyes with small text.

There is one thing to be said for using a composite output to view your work though, at least you will know what the final product will look like. Computer monitors with their high resolution and colour handling ability often show a picture much better than the finished product on the home TV. This can cause problems when you go to show off your masterpiece.

ALWAYS view your edited video on a composite monitor or TV before putting it to bed, as they say, to avoid disappointment later particularly with illegal colours which can give some weird results to say the least.

One good point is that the unit appears to become transparent when no video is connected and it was possible to format disks and copy files without any of the problems which occur with a Neriki still in circuit. It is impossible to do this with a Neriki. I can't say what effects other Genlocks have on these activities as I haven't tried them.

Conclusions

We have a product that can under the right conditions produce excellent results for the amateur and at a budget price. It is very easy to use even for a first timer. The accompanying disk allows you to display both vertical and horizontal colour bars for system checking and adjustment. There is also a very basic text script program included. The RocGen works only with composite video in and out.

The manual is very basic, being what looks like a photocopy of nine pages, but this doesn't matter as it contains pretty much what you need.

Not bad really if everything goes right and many people will probably find it just what the doctor ordered.

The bad news is that there can be sync. problems if you are unlucky. To be fair the manual does offer a warning about possible sync. problems.

It seems certain that it will lock the video and Amiga graphics with a camera as the video source and it will accept Hi-8 camera outputs but not S-VHS. It will lock with some video recorders but not with others and it may not be a question of recorder quality.

I went back to the video studio and carried out the test again on Panasonic Professional Recorders with the correct voltage on the supply this time.

There was still a tendency to jitter at the top of the screen even when the studio mixer was bypassed and with the mixer in circuit we had colour problems in most of the upper part of the screen. We still had sync. problems except with the Amiga as the only source.

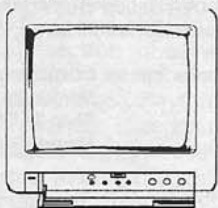
So it seems it's like the old saying "you pays your money and you take your chances." If you intend to buy get a test run on your gear first.

Very good value if it suits your gear. What it really needs is a better sync system and then I would not hesitate to recommend it to any one. □

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Working with a Single Drive

by Tim Strachan

The best way to cure the Single Drive Blues is to go out and buy a second disk drive. The Amiga's Operating System is a powerful brute and gets happier the more resources it's got to play with, such as extra drives, more internal memory, hard disks, and all the many peripherals that are proliferating for this flash machine. It is certainly crippled when operating on a single drive, since it's capable of handling several external drives, floppy and hard, RAM disks, and CD-ROMS.

But if you have to stick with a single drive for a while, then there are some simple ways around the problem without becoming an expert in AmigaDOS.

Directory utilities

For want of a better term, vague though it is, these DU's are appearing rapidly in the Public Domain and commercially, because they are so useful and simple.

The basic idea is a small program (23 kB up) which has the simplicity of the WorkBench but the power of the CLI - almost. Double-clicking on its icon brings up a screen which usually has half devoted to File listings and the other half to "Command buttons". All you do is click on a file which you want to manipulate (copy, rename, move, read, print, etc) and then the appropriate button. The current directory appears in the listing window as the "source", and there is a small requestor into which you can type the "destination" such as mydisk:myfile, if it's necessary for the particular command. For example, to print out a file, you'd simply click on the filename in the directory listing (it will be highlighted), and then click on the PRINT button. That's all you need to do to get a printout. Likewise READ, or SHOW (to see a graphic). Moving through the directories of any disk simply requires clicking on any sub-directory, then on GETDIR and the

listing of the new sub-directory appears in the listing window. You get the idea. It requires no typing skills, and is quick and powerful.

There is a number of these utilities available, but one of the most useful for single drive users is the one called *DUIII*, which has the advantage of being completely "portable" - ie, it is a self-contained program and can be dragged via its icon to any disc without any other baggage. (I say this because some of the more sophisticated ones require a number of other programs to be transferred with it and placed in the c: directory of your disk). This is a Public Domain program and can be downloaded from Bulletin Boards round the country, or found in a Users Group, or found on the free MegaDisk catalogue disk, with explanatory file.

The beauty of it is that you can put it on your WorkBench, double-click on it, and then remove your WorkBench and explore other disks. It's like having a small RAM disk with all the commands you need. The only thing it won't do is to run a program - other utilities do this, but they access the CLI RUN command to do so, which defeats the purpose somewhat, since they have to find it in the C directory of the Workbench disk. There are numerous other such programs available which do the same thing, commercial and public domain and shareware.

Using a CLI shell

For those who don't mind typing and are reasonably fluent with the CLI, there are various "shells", ie, programs which "wrap around" the power of the CLI, and make it easier to use. These range from simple to very sophisticated, cheap to expensive. The Shell, which is part of the 1.3 and higher versions of the Operating System, is fine, and in the WB2 version, keeps the main commands

resident in memory. However, if you're using WB2, you probably don't need to be told about shells or using single drives.

Using the question mark in CLI

Another very useful trick is this: Anytime you use a question-mark with a C command, the computer will give the "template" of the command (ie, all the "arguments", keywords, etc used by that command).

So if you enter in the CLI:
copy ?

you'll see the following appear in your CLI window:

```
FROM/M,TO/A,ALL/S,QUIET/
S,BUF=BUFFER/K/N,CLONE/
S,DATES/S,NOPRO/S,COM/
S,NOREQ/S:
```

Then if you simply hit <Return> you'll see:

copy: required argument missing

Now this means that if you want to copy a file from disk B to disk D (neither being your Workbench disk), enter COPY ? and the system will first find the "copy" command in the C directory of your Workbench disk; then pop in disk B and enter after the Template line df0:MyDoc to D: and the system will find the file "Mydoc" on disk B, and then ask for disk D to copy the file to. Insert Disk D and your file will be copied as you wanted.

This technique can be used with the other CLI commands as well. Experiment!

Putting CLI commands in Ram

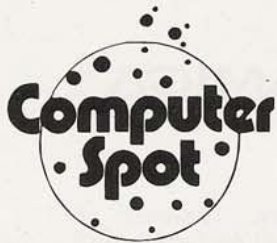
You can also bite the bullet and do it yourself. Double-click on the CLI or Shell icon in the SYSTEM drawer of your Workbench and the CLI/Shell screen will appear. Enter the following commands:

```
> copy c/dir to ram:
> copy c/cd to ram:
> copy c/type to ram:
> copy c/run to ram:
> copy c/xxxx to ram:
```

where xxxx is any other command you may use. Now if, for example, you want to look at a disk called Fish74, remove the Workbench, place Fish74 in the drive, and enter:

```
> ram:cd Fish74:
```

Cont on p32



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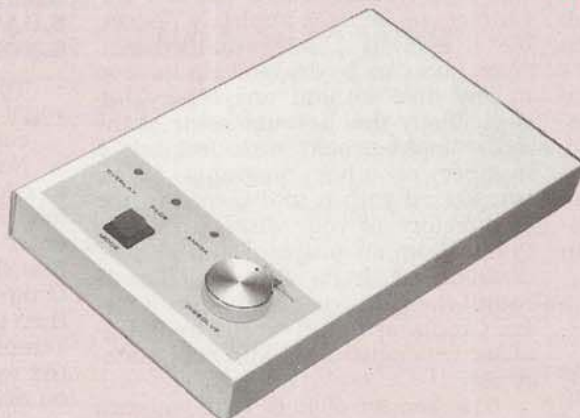
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which changes the current directory to the "root" directory of Fish74. To get a listing of what's on the disk, enter:

> **ram:dir** or
> **ram:dir opt a**

for a full listing, including the contents of all sub-directories. To change to a subdirectory called "Less", enter

> **ram:cd less** then
> **ram:dir**

and you might see a file called "Less.man", ie, the manual for Less, so to read it, enter:

> **ram:type less.man**

or to print it out on paper - thus:

> **ram:type less.man to prt:**

and so on. The basic idea is that once the commands are copied into RAM they can be used as above. A simple variation of the above is, that rather than referring to all the com-

mands in Ram with the "ram:" prefix, you could type in another line:

> **path ram: add**

which would make the system also look into RAM: whenever you use any command. Once you've got used to that you can write a special file called a Batch File which you can copy into your Startup-sequence to be executed each time you boot up.

Other ways of using the Ram disk

You can use the RAM disk on the Workbench too - if you want to copy a big file, or a number of files from one disk to another it is often speedier to simply drag all the icons you want to copy into the RAM DISK window (double-click the icon to open it, or simply drag the icons on top of the Ram Disk icon). Then put in your "destination disk", ie the disk you want to copy to, and drag all the icons from the Ram

disk into the window of your destination disk.

This same technique can be used from the CLI too of course - instead of dragging icons, just use the COPY command to copy all you want into RAM, then change directory to RAM, pop in your destination disk, and copy everything across, as follows:

```
cd dfo:directoryname
copy filename to ram:
cd ram:
(change disks in dfo:)
copy filename dfo:Otherdirectory
```

and the file "filename" will be copied to the directory you specify on your destination disk. □

- This is a reprint of an article which appears in "MegaDos", the AmigaDos Manual-on-disk published by Megadisc, which contains more material of a similar nature. See advertisement in this issue.

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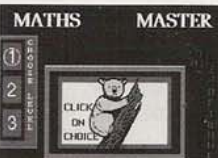
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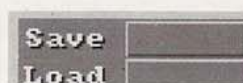
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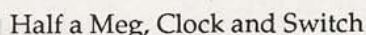
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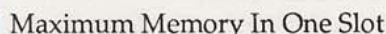
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How Computers aid Learning

by Anne Glover

Students of all ages seem to be spending a lot of time glued to their computer screens these days. A few years ago teachers were complaining about the "square eyes" in their classrooms who were being spoon-fed by the TV who found it hard to concentrate in the conventional classroom and spent an inappropriately small amount of time out and about on the sporting field.

These days many classrooms have their own TV and a computer, or at least access to both. They have become a normal part of education in the 90's. Attitudes appear to have changed dramatically!

In reality, of course, students of five years or fifty years of age need some variety in a balanced educational diet. The TV and the PC can contribute to that variety. Teachers and parents will still be concerned about a student who spends an inordinate amount of time glued to any one activity. Attempts to diversify their interests will probably follow.

TVs and videos are being used extensively as an aid to learning in the classroom and in the home. The application of PCs has spread in the same manner. While I was writing this particular paragraph, my 4 year old has rushed in to tell me that computers are on *Sesame Street*. Computers have certainly pervaded all levels of education!

The degree to which learning will be enhanced depend on a range of factors including the quality of the software, the complete integration of the PC into the learning process (ie learning with computers and not only about computers) and the ability of the teacher and the software to meet the needs of the student.

The computer allows the student to learn without others watching, interrupting, judging or battering his or her self-esteem. So an adult may learn to speak a new language or a child may learn to solve some basic problems without being called "boof-head". They will be able to continue

on, instead of giving up and reinforcing their own feelings of uselessness.

The student will set their own goals and provide their own rewards by achieving these goals. Their self-esteem and confidence will grow as they experience their quiet successes. This feeling of self worth will assist them in other areas as well. If a person feels good about themselves and knows they can succeed, they will attempt more challenging activities with confidence and experience more successes thus generating a positive cycle of success.

The computer allows the student to learn without others watching, interrupting, judging or battering his self-esteem

Even the occasional failure or a denigrating comment by their peers will be less damaging if they have already built up a positive self image. Using the PC as a tool will, if the software is flexible enough, allow the student to make decisions regarding the direction of their exploration and learning. No longer need the student be tied to the group of students, now they can chart their own path, learning appropriately and effectively as they go.

Some students are very capable of learning by reading or listening. These students have traditionally performed well in the past. Other equally intelligent people learn more effectively when placed in an active learning environment. Good software will place the student in such an environment. Now as an initiator, taking an active part in their own learning and no longer a passive observer with the qualities of a sponge, the student will in most cases even perform better in conventional exams.

While the PC facilitates inquiry

learning it also reinforces a lot of old-fashioned skills. The need to concentrate, to listen and to be observant are as important today as they were in Grandpa's day. The ability to follow instructions carefully and to determine, then follow through a logical sequence of processes are both valuable skills. Other skills that will develop to assist learning as a consequence of using the PC include the process of problem solving, the understanding of research procedures and the emergence of individual responsibility for the learning process.

If positive attitudes to learning can be developed using the PC or if negative attitudes can be eliminated, this in itself can aid learning. The PC will hopefully instill in the student:

- 1 Learning is fun
- 2 I am learning for my benefit
- 3 I am good at learning

4 Learning is a part of life to continue always. It will certainly not end simply because I leave an educational institution.

Students with special needs can often be provided with additional assistance by using a computer. The needs of the deaf and blind are so slowly being addressed. Students with muscular and communication problems are more able to meet their true potential by using a computer. Other students who are isolated for medical, physical or cultural reasons are increasingly turning to computers to assist them in their learning process. Some of our hospitals are now using this technology to teach their long term inhabitants.

Other students who need to change schools or miss a lot of school may find their favourite educational software a reassuring source of stability. One child I know of with dyslexia has improved his school performance dramatically in the two years since his parents purchased a computer for the home. Other students are finding the appropriate software is a useful reinforcer of the English language when they don't speak English at home.

So the computer can certainly aid the learning process. It can do this by changing attitudes, improving self-esteem or providing a facility to work through challenging problems without criticism. The computer should make learning for all of us a lot more fun, after all we remain students always, unless we close our minds to the world around us. □

Let's SPELL at home

by Anne Glover

Do you have a young child who walks around the house saying "What's that called?" Or an even younger one saying "Was dat?" Or perhaps an older one asking "How do you spell that?" The designers of the Let's Spell series have been following these kids around and are now providing them with a few answers.

Let's spell at home allows the child to wander around a neat two storey brick and tile home with garage and backyard to observe its contents. "What's that?" will always be responded to with the name of the item appearing on the screen. Young children will enjoy exploring the house and its contents for quite some time.

This is however, a spelling program. It has been designed to assist children in recognizing and identifying commonly used words. It also serves as an introduction to the letters of the alphabet and demonstrates their function.

Once a child has used the mouse to click on their selected object s\he has entered the spelling stage of the program. The item is now presented in close up with its name on the monitor. The child is required to spell the word by copying the letters on the screen. The mouse is also used here, not the keyboard. Letters to be selected are presented in alphabetical order on the screen. This is probably a more useful and easier method of selecting letters for very young children than using the keyboard. This level is suitable for the 4 to 6 year olds. It does help the child become familiar with the letters and their associated sounds. Each letter selected to spell a word is sounded out, but as only one sample sound is used per letter the sound will not be correct in each context. This does not claim to be a phonetics based program so the "a" in "mat" will sound the same as the "a" in "mate". Sounds such as "sh" and "ch" also cannot be handled by the program. This rigidity in the sound program may confuse some children but most will not notice the sounds and concentrate on the visuals.

For the 6-9 year olds the word se-

lected to be spelled is not displayed. However they can peek if they need to. Clicking on teddy's eyes will display the word and sound it for about 4 seconds.

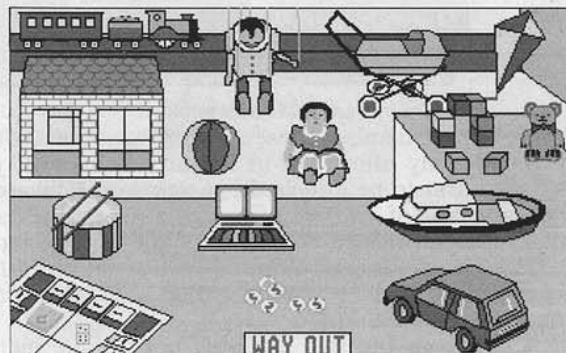
An additional feature is a thermometer to show the child how close they are to the correct letter. This gives the child a degree of independence from the adults as they can guide themselves.

Apart from Let's spell at home, the series also includes another similar program: Let's spell at the shops. This one features a little girl or boy (as you choose) wandering through a range of shops. The toy shop and the pet shop will be real favourites, but there is also a clothing shop, a butchers and a hardware store, a musical instrument shop, a green grocers and a grocers to keep them busy for quite some time. Let's spell out and about is the third in the series and follows the same lines. In this one the new speller can explore the seaside, a town, a farm, zoo or park, or even the underwater world.

My only concern about these programs is that they must always deal with nouns, because of the way it is set up. No other types of words get a look in. The Let's Spell series is certainly more fun than using spelling lists, but I feel a lot of the magic will wear off fairly quickly. Little kids are often more perceptive than we realise, spotting a spelling program at 100 paces is a special ability of some children.

Conclusion

This spelling program is fun to use and easy for young children to operate on their own. It will certainly help them recognise letters and words. The sound program is not flexible enough to provide accurate sound in each case and may cause a little confusion. It can only deal with nouns, but as an introduction to spelling it provides more than enough scope for the beginner.



Let's spell in French

Yes, the Let's Spell series also comes in French. The kids can wander through the same house or shops etc all the while learning how to spell in French. These programs have the same things going for them and the same drawbacks as the rest of the Let's Spell series. That is, they are easy and fun to use but only nouns can be selected and the sample sounds may be inappropriate for the chosen context. The words themselves are not pronounced.

It all seems a bit strange, walking through the same house where only the names have changed. I almost expected someone to jump out and say "trick or treat!"

This program may be of some use to introduce children at a very rudimentary level to the French language. It will certainly not get you through ordering your meal at the local French restaurant, nor help you much in any French exams, but then it is not designed to do that anyway.

Conclusion

This one may add a bit of novelty value to the teaching of French to children and as such could be a useful teaching aid, if it is not relied on to do too much. If there is a market out there for teaching 5 year olds how to spell in French, this program will certainly fill the bill.

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Speller Bee

by Anne Glover

Do you remember those spelling bees we endured every Friday afternoon in Primary School? If you were the first to be knocked out you were "rewarded" with the cane and if you won, you revelled in the knowledge that you had missed out on the cane for one more week! Perhaps it was meant to build character, or rather characters. They don't teach kids that way any more, if you can call that teaching!

Apart from the title bringing back some memories of deeply seated traumas from my earlier years, I quite liked this program. It is well thought out and, like all of the First Byte products I have seen, it has a lot of built-in flexibility. This means it will suit a wide range of students and they won't grow out of the product quickly.

This is not a program for the little kids to use on their own. Once a child is bringing home spelling lists (or their

equivalent) from school he or she could be ready to use this program, but with your assistance. To help you, a useful booklet is included and a guided tour is also on the disk.

Speller Bee allows you to put the child's own spelling lists into the program, thus making it suitable for a much wider range of students than would otherwise be possible. It also means that the child's own classwork or specific problem areas can be dealt with.

While using *Speller Bee* the child will see and hear the word if necessary before they are required to spell it. After two incorrect attempts the program is designed to actually try to help the child. Firstly any incorrect letters are removed; later if they are still having problems the word is presented to be copied. That word will then be recycled to be presented again before the end of the session.

Games

Three spelling games make the learning more fun. Over 15 levels of difficulty can be selected, but as you can use your own lists the range is really limitless. The lists already on the disk have words that range from "he" and "in" to "encyclopedia" and "controversy". There is no reason why even easier words cannot be used for very young children and even more difficult words by students looking for a real challenge. Family names or favourite words could be used as could foreign language words within the limits of the keyboard. Pronunciation shouldn't be a problem as you teach the computer to sound out the words. Obviously however, if you pronounce them incorrectly, the computer will too.

You will need to keep the practical joker, who is into swear words, away from this one. Just as you will need to be extremely careful to program in each word with its correct spelling. Otherwise the kids will be learning how to spell the words INCORRECTLY. It won't be the first time this has happened!

The three games included are firstly, a Word Search game, where the player is required to find the words in a grid. Secondly, Scramble, where the player needs to unscramble words, and thirdly, Detective - find the missing letters to make up the missing word. Not the greatest games of all time, but streets ahead of staring at boring spelling lists.

As your own lists can also be used in the games, students can learn these words in a less painful way. Active learning is also taking place rather than passive non-learning. Teachers, parents and especially students will get a lot out of this one!

Conclusion

A great spelling program that can incorporate your own lists into its activities. Useful for all ages apart from the very young. Flexible, versatile and good value as it can be used over many years of dreaded Spelling Bees!

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Amiga HINTS & TIPS

by Tim Strachan

Using fastmemfirst to get more performance

Use this command as the first line in your startup-sequence to force all subsequent programs into fast memory, rather than letting them take up valuable chip memory (of course this only makes sense if you have more than 512K of memory, ie you have some "fast" ram available). Then, for example, if you run *Sonix*, it will go into fast ram, and you'll have a bit more space left for samples. The same goes with *DPaint* and others.

Using ALIAS

Throw away those pieces of paper that you scribble notes on, to later go into the computer - you only do this because it takes a while to load up a particular file in your text editor, right? Use Alias to bring it up with one keystroke: for example, I compile the Hints&Tips, MegaBites, and Bugs & Upgrades columns on Megadisc throughout the weeks leading up to a new release, and to speed the process when I have an idea for a new entry (such as this one), I create three ALIASes in the file S:SHELL-STARTUP, where all the ALIASes are kept:

```
alias HT run e md21a:My_stuff/HT
alias MB run e md21a:My_stuff/MB
alias BU run e md21a:My_stuff/BU
```

My text editor is called E and I keep

the files in the directory MD21a:MY_stuff. So when I want to edit MegaBites, I simply type into the CLI, MB and up it comes ready for entry. Try it, you'll like it.

Improving TV modulator output

If you persist in using your Amiga with a TV modulator, you'll know that the picture leaves something to be desired, due to the inferior quality of Commodore's A520 TV modulator. I'm told that you can improve the quality somewhat by channeling the output from the modulator into an aerial booster amplifier, which are used with indoor TV aerials. Will someone let us know how much of an improvement there is?

Hack to use A2000 keyboard with A1000

Amazing Computing Nov 90 issue contains a good cheap plan for performing this possibly useful hack - you could have a perfectly good A1000 but a dead keyboard, and might be interested in getting a Phoenix board.

Archive file formats

There are at least seven to date of these formats, which are principally used in telecommunications to compress (groups of) files to save time and money in tele traffic. The programs and their filename extensions are:

```
Arc .arc Lharc .lzh
Zoo .zoo Warp .wrp
Pak .pak Lhwarp .lhw
Pkazip .zip
```

Robert Lang wrote a program called ArchEdge which facilitated the use of these programs in both directions (compression & decompression) - you can find it on MD17.

One excellent use for these programs, even if you don't telecommunicate, is to free up half of your floppy disks - compress rarely used information onto fewer disks and you'll have

more disks left over to store more info on. You can easily get listings of compressed files in archives without having to decompress so it's quite convenient.

Reading a 3.5" IBM drive when you have the bridgeboard

If you've got a 5.25" drive with your Bridgeboard and want to read a 720K IBM format 3.5" disk, slip it into your CrossDos-enabled 3.5" drive, and use the AREAD command from the Bridgeboard to copy from the 3.5" disk to whichever destination you gave it. Hence:

```
AREAD DIO:FILENAME C:FILENAME
```

will copy "filename" to the Bridgeboard's hard disk. [For more info on CrossDos, see the reviews drawer on MD17 or March/April Professional Amiga User.]

A3000

In *DPaint III* to anim-paint, hold down l-amiga key & paint. With A3000, this combination pulls down the screen, & overrides. Go to Prefs, hit the IControl and change qualifier - DON'T remove qualifiers completely or you'll have to reboot and recopy iconcontrol.prefs file. Thanks to Graeme Whittle for this info. Note that CTRL, ALT & AMIGA are all used in *DPaint* one way or another, so use the SHIFT key with another qualifier.

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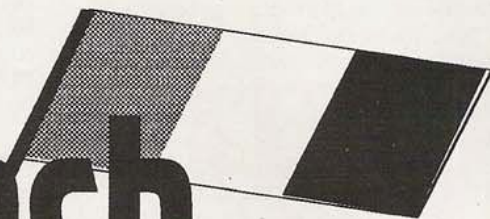
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Micro French



by Anne Glover

LCL's *Micro French* is a serious attempt at computer-assisted learning for students or travellers. It is designed to be used in the classroom or the home, as a self-tuition or revision course. This is a complete course of 24 programs. As it incorporates an audio tape it can deal with both spoken and written French. Topics covered include:

- pronunciation
- colours
- articles
- face vocabulary
- signs and notices
- plurals
- time
- commands
- adjectives
- perfect tense
- opposites
- object pronouns
- verbs

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The two comprehension tests can be used to chart your progress and the games included make learning more enjoyable.

Micro French attempts to put learning French into a real life context. Signs and commands are studied, newspaper articles are used for comprehension tests and a shop is the learning environment for some other topics.

The program takes quite a while to get going. Workbench is needed a couple of times and this requires a bit of disk shuffling. This shouldn't be a real deterrent if the student allocates a reasonable amount of time to each study session. It is not the sort of program you can spend the odd five minutes with, unless of course you have it installed on your hard disk. A second floppy drive would be a help.

The graphics, sound and games in this package are all very basic. As this program is available for a variety of computers, I suspect each one is produced to a similar level with no add ons to take advantage of the Amiga's superior capabilities. The simplicity of the graphics do not however affect or limit the potential of this package as a teaching aid.

The teaching technique used in the program varies. At times lists of words are provided, in French and English, to give students the opportunity to familiarize themselves with the new words. At other times the meaning of a word may be determined by its context in a sentence. At other times good old trial-and-error will be used.

Error handling by this program also assists learning. After the student has given an incorrect answer, the correct answer appears briefly, then the student will be asked the question again. Unfortunately there is no facility to program in extra data to suit individual circumstances or to extend your studies once the 24 lessons have been completed.

Conclusion

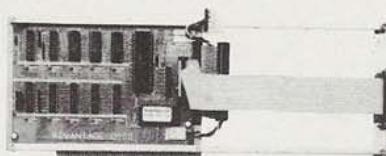
This package, as it contains both a disk and an audio tape, makes a useful attempt at computer aided learning. Both school students and travellers will find it to be of assistance as an introduction to the French language, either in the home or classroom context. It would be useful to complement classroom studies, revise previous lessons or to brush up a rusty French vocab. in anticipation of a holiday on the Riviera! Don't however expect it to solve all of your problems. □

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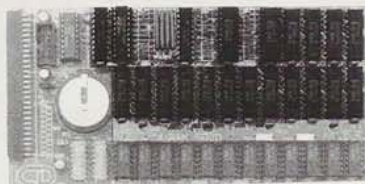
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SCSI and RAM controllers for the Amiga 2000



AdSCSI 2000

Adjacent are the test results of five SCSI host adapters using Disk Speed 3.1 with a Quantum 40S hard drive and a single 40 megabyte freshly formatted partition. The far right hand column shows the results of a simple copy test in which the same drive was set up with two 20 megabyte partitions and 10 megabytes of data was COPIED from one partition to the other. The copy syntax used was "COPY DH1:DH2:all quiet". NOTE: DiskSpeed 3.1 is a product of MKSoft.



ICD AdSCSI 2000™ and 2080 Host Adapter Controller using DiskSpeed 3.1

6800 Results (stock Amiga® 2000 computer with ICD AdRAM™ 2080 using 2 megabytes of FAST RAM)

Host Adapter	Files Create	Open Close	Scan	Delete	Seek Read	512 Bytes	4,096 Bytes	32,768 Bytes	262,144 Bytes	Copy Test Mins Secs
ICD AdSCSI 2000	29	50	147	66	198	Create 78,352 Write 86,133 Read 91,762	168,298 190,379 237,763	336,807 457,690 457,041	392,272 645,277 642,190	4:37
IVS Trumpcard Professional	11	41	126	30	197	Create 28,660 Write 30,139 Read 74,988	153,831 189,238 244,848	267,899 505,528 499,569	313,226 617,093 640,148	5:59
GVP Series II	10	35	104	35	204	Create 29,142 Write 29,909 Read 60,750	154,273 187,258 239,531	256,876 461,229 432,960	311,771 542,842 603,225	6:19
GVP Impact 2000	10	33	96	31	203	Create 29,048 Write 29,889 Read 54,902	142,406 189,413 197,040	235,676 419,430 367,216	279,620 503,631 486,589	6:34
Commodore A2091	7	26	68	24	200	Create 15,780 Write 17,559 Read 38,153	94,187 116,736 171,451	199,728 349,525 413,189	224,069 393,312 579,357	8:08

68030 Results (GVP Impact™ A3001 68030 at 28 MHz with 4 megabytes of 32 bit RAM)

Host Adapter	Files Create	Open Close	Scan	Delete	Seek Read	512 Bytes	4,096 Bytes	32,768 Bytes	262,144 Bytes	Copy Test Mins Secs
ICD AdSCSI 2000	92	145	382	259	783	Create 206,966 Write 208,331 Read 251,344	185,127 193,049 258,940	572,357 591,267 589,968	691,843 762,600 764,773	2:38
IVS Trumpcard Professional	13	69	213	52	667	Create 29,482 Write 30,152 Read 103,033	165,598 189,506 296,395	359,833 559,280 563,545	440,058 703,631 761,159	4:47
GVP Series II	12	64	185	53	768	Create 28,994 Write 29,887 Read 108,109	163,083 189,506 293,158	366,214 569,926 550,448	443,694 707,339 696,631	4:50
GVP Impact 2000	12	61	172	54	752	Create 29,372 Write 29,952 Read 54,902	162,258 189,506 197,040	347,714 562,168 367,216	446,648 715,872 486,589	4:56
Commodore A2091	10	46	117	31	752	Create 29,155 Write 29,902 Read 60,245	156,979 188,375 241,109	283,458 431,221 531,906	301,274 446,276 710,146	5:35

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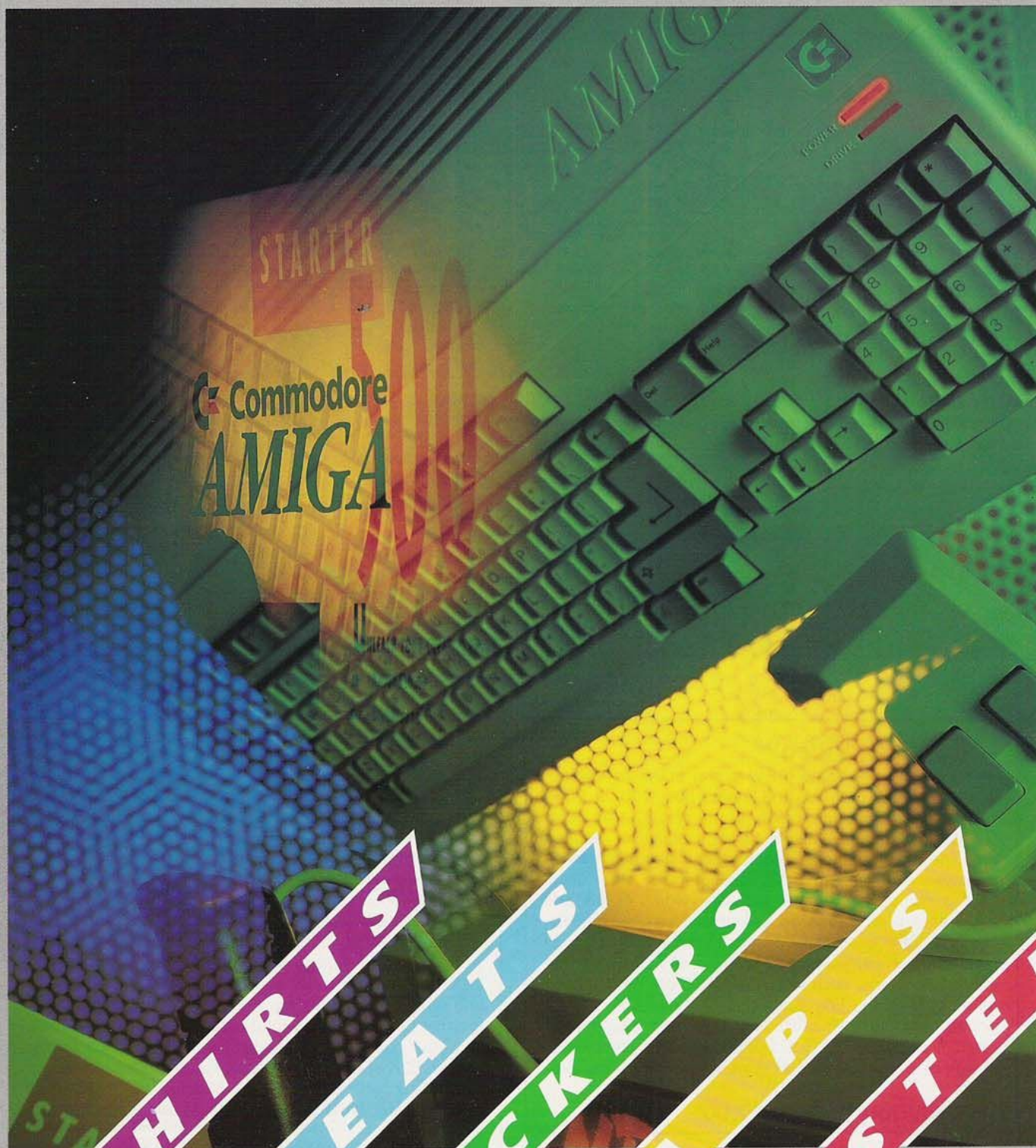
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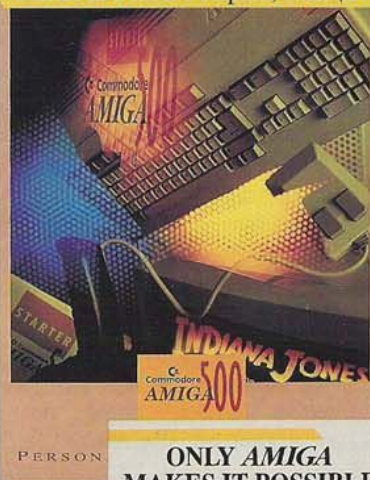
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IN THE DOMAIN

by Tim Strachan

There must be many ACAR readers who aren't sure of what Fish Disks are and whether they're worth exploring. Tim takes a look at some useful goodies from the latest Fish ...

I get the Fish Disks from the compiler, Fred Fish, and have done for some years, so I've been through quite a lot of PD (public domain) software. When the next lot of disks arrives, I scan them for the interesting stuff, and what follows is what I found interesting in the bunch from #451 - 460.

Naturally, others will disagree with my idea of "interesting" and may even equate it with the term "deadly boring", but there's no accounting for bad taste! I hope at least that the selection of programs here enlightens a few people as to the quality of the resource that the Fish Disks are, and clears up any confusion about them. They are available from User Groups, most BBSs, and other groups, including Prime Artifex and Megadisc (see adverts this issue).

• A few phrases which newcomers may not understand:

BINARY ONLY means that the program is included (all that most people want) but no "source code", i.e. the original code which was compiled to create the final "executable" - another name for program.

VERSION NUMBERS many programs have appeared on the Fish disks, or elsewhere, numerous times, as the authors update and refine them. Different authors have different numbering systems, but suffice it to

say that the larger a number the later the version.

ECS Enhanced Chip Set. The latest versions of the Amiga's custom chips, which come as standard equipment in the A3000.

Fish 451

'Liner A shareware outliner whose function is to create outlines for notes or export to other programs. 'Liner can save an outline as ASCII text and is clipboard compatible. This version utilises a number of AmigaDOS 2.0 features and thus requires 2.0. Support for the new ECS Denise display modes is included.

Includes: source in C

Version: 2.11

Last version: version 2.00 on disk 394

Author: Dave Schreiber

Convert Converts 39 different image formats into CBM standard 24 bit IFF files for display on devices such as Black Belt Systems HAM-E product.

Includes: Binary only

Version: 1.6

Author: Pete Patterson/Ben Williams

RRamDisk Another recoverable ram disk. This one supports up to 32 units and can be autobooted. Unused sectors are deleted from memory. The ram disk can be formatted, copied to, or used just like a normal disk drive.

Includes: Binary only

Author: Bob Dayley

Fish 452

Budget A program to help with managing personal finances.

Includes: Binary only

Version: 1.302

Last version: 1.301 on disk 416

Author: Le Lay Serge Camille

Fish 453

Quick A utility program specifically targeted at hard drive users to eliminate the frustration of launching programs on the Amiga. It eliminates the need to open Workbench windows and/or remember and type in long pathnames to executables.

Includes: Binary only

Version: 1.0

Author: Greg Gorby

Fish 454

Redaktu A PostScript program which runs on PixelScript to edit other PostScript programs. Several examples and a detailed explanation are included.

Author: John Starling

StillStore A program designed for freelance, corporate, and broadcast television. It loads and displays IFF images of any resolution interchangeably from a list file or as inputted directly (i.e. random access). The user may easily skip forward or backward one or more pictures in the list. A "generic" display is always just a few seconds away. The program can be used "on air" with no concern that a pull down menu will suddenly appear in the viewable area. It also provides for a precise cue for changing windows or screens.

While the main purpose is to load "news windows" of 1/4 screen size, StillStore can also handle full-sized and overscanned images. Also includes slide show modes and a screen positioning feature. Stillstore is written in the Director language from the Right Answers Group.

Includes: Binary only - source available from authors.

Version: 1.2.1

Last version: 1.2 on disk 317

Author: R. J. (Dick) Bourne and Richard Murray

Vortex A universally accented character converter for Amiga, IBM-PC, Macintosh, and C64 files written in most west European languages (Danish, Finnish, French, German, Italian, Islandic, Norwegian, Spanish, Swedish, and more). Works with either ASCII or Word Perfect files.

Includes: Source

Version: 1.5

Author: Michel Laliberte

continued on p44

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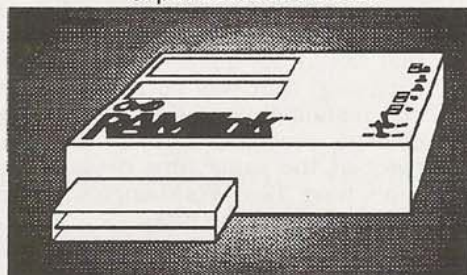
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Tutorial

COMING TO GRIPS WITH THE AMIGA'S CLI A TUTORIAL FOR BEGINNERS PART 10

By Andrew Leniart

This issue I want to concentrate on a couple of the extra commands which came out with the Workbench 1.3 software upgrade. I haven't covered any of your letters this month, but you can certainly look forward to seeing replies to your individual problems in the next issue.

Once upon a time, your basic 'you beaut' Amiga 500 with a standard 512K of RAM and an external disk drive was enough to keep most people happy. Not so these days. More and more software being written assumes that people have at least 1 meg of Ram and a lot of the time, it is suggested that 2 meg would be far less painful by avoiding constant disk access.

Likewise with Amiga Dos commands. While it is quite possible and workable to use all Amiga Dos commands with a 512K machine, you will inevitably start to run into memory problems if you begin to use all the features available to you. A good example of this is using a RAD disk or making a lot of commands 'resident'. RESIDENT, along with a few others came out with the 1.3 Workbench upgrade, and we will look at what type of benefits can be gained from it shortly.

Those of you that have not yet upgraded your Workbench software to 1.3 should seriously consider doing so as you are missing out on quite a few extra features. If you're still stuck with 512K of memory, don't despair too much as you can still try all the examples which will be given to get the gist of what's going on.

Making Commands Resident

Before "Resident" was born, most people used to copy their favorite commands to Ram. Dos was then instructed to look in the Ram disk for

any commands before it accessed the Workbench disk by means of the PATH command. This made an incredible difference in speed as everything was happening in memory. Now this worked just dandy, so why complicate the issue and make a new command which virtually does the same thing by placing a command in RAM?

Well, when you think about it, there is method to the programmer's madness. Inefficient use of memory for one. Think about it. Using the old method, the command is first copied into memory so it can be loaded from RAM. When you execute it, it gets loaded "from" memory "into" memory again to be executed. All of a sudden its size is double and it is using twice the amount of space that it should. Get the drift?

On the other hand, commands made "Resident" are loaded into working memory once. When it is called a second time from a second CLI, the program is actually executed from where it is in ram. This makes a lot more sense and is quite clever and useful.

There are certain requirements that CLI commands must meet before they can be made resident. One requirement which I think is particularly worth going over briefly is this. The command must be "re-executable". In other words, the command must be of a type that can be used in two CLI's at the same time. Here is an example to try to see what I mean.

Open up two CLI's and position them one under the other on the screen. You may need to re-size them so that they will fit. Now in the top CLI, type in
<DIR Df0: Opt a>

without the "<>" of course. While the Amiga is hugging away reading your workbench disk in Df0: click once in the lower CLI and type in

<DIR RAM: Opt a>

If you have anything copied into RAM, then you will get a listing of it in your second CLI. This is what I mean when I say that the command is re-executable. You can use it more than once at the same time in more than one CLI.

Most CLI commands on the Amiga are re-executable with but a few exceptions. One example of a command that would not qualify is the LoadWb command that was covered in previous instalments of this tutorial. For obvious reasons, it can't be used twice at the same time because you can't have two Workbench's on the Amiga at the same time.

Another example is the IconX command - which we'll be going into in a little bit more detail shortly.

Another thing to remember when using the Resident command is to make sure you that you have the PURE "protection bit" set on any command before trying to make it resident. You can find out which commands have the pure bits already set by going through the following steps:

CD Sys:Clis

Simple as that. You will get a listing of all the commands in your "C" directory which will show you which ones have the PURE bit set and which don't. More information on commands protection bits may be gotten by referring to previous issues of this tutorial. Briefly though, here is an example of what you might get after trying the previous example.

```
IconX 3884 ---arwed 13-Oct-90 13:42:28
LoadWB 2784 ---arwed 13-Oct-90 13:42:30
Protect 928 --parwed 28-Mar-89 18:07:48
SetClock 4972 --parwed 13-Oct-90 13:42:33
Wait 628 --parwed 28-Mar-89 18:11:54
Eval 920 --parwed 09-Apr-89 23:02:32
```

The first two commands, "IconX and LoadWB" do not have the "p" or Purebit set therefore do not qualify to be made resident. The last four, "Protect SetClock Wait and Eval" do so it would be quite safe to use them with Resident.

If you tried to make a non-eligible command like IconX resident then the Amiga would give you an error message like this.

```
Pure bit not set
Cannot load <Command Name>
```

You could of course go ahead and set the pure bit yourself by means of the protect command covered in previous issues, but this practice should be avoided or used with caution be-

cause commands or programs that do not already have the pure bit set are not usually suitable to be made resident. However, sometimes you might need to "re-set" the pure bit on a command if it was unset for some reason previously.

Ok, enough of all the ins and outs. Let's now take a look at how to use the Resident command. Type the following into a CLI:

Resident ?

The result should be the Amiga giving you the commands Syntax or argument template. It should look something like this:

```
NAME,FILE,DELETE,/S,ADD/S,REPLACE/S,PURE/S,SYSTEM/S
```

Here's what they all stand for.

The NAME and FILE arguments specify the exact path of the command that you want to become resident. The following example places the "Protect" command in the Shell: Resident C:Protect

The DELETE argument on the other hand will do the opposite and remove the command from the list of resident files which you might have. So to remove the Protect command from memory or being resident, you would enter the following command:

```
Resident c:protect Delete
```

The REPLACE argument does what the name suggests and replaces any command in the resident list with another command not in the list. For instance, the following example would replace the Protect command currently resident with the Wait command:

```
Resident c:protect c:Wait Remove
```

And that's about it. Play around with the resident command and get the feel of how it works. Once you are comfortable using it, make all your favorite and most used commands resident and things will happen a lot quicker when using the CLI. The proof is in the pudding, so experiment and prove it to yourself. One final note.. To get a listing of which commands are resident at anytime, simply type <Resident> on its own in a CLI and you will get a listing of all commands that are currently in memory and resident.

Iconx & Script Files

Originally brought into the Amiga world by a PD/Shareware programmer in the form of "Xicon", IconX is a similar and an excellent addition to our Workbench toolbox of commands. This command makes it possible for us to call a script (or batch) file from workbench simply by double clicking on an Icon.

Obviously, the first thing required here is a script file which you need to run. Let's create a simple but useful one now so we can set up an Icon using IconX to execute this script file from our Workbench environment. I will explain how to create this script file using ED, the editor which everyone will have in the "c" directory of their Workbench diskette. If you are more comfortable using your own favorite text editor to create script files, then by all means use it. It doesn't matter what you use, as long as it has the ability to save the file in plain ASCII format.

Ok, fire up ED in the following fashion. Open up a CLI & CD to the root directory of your Workbench diskette by entering < CD : > Having done that, type in the following command to begin to create your script file:

```
ED DFO:Edit-SUS
```

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This will result in Ed the editor coming up with a blank window with the message down the bottom saying "Creating newfile".

Now we are in a position to create our "Edit-SUS" file which will reside in the root directory of our Workbench Diskette. Type in the following simple script and then pressing return at the end of the line:
Ed Sys:startup-sequence

That's it! Simple eh? Now press the Escape key once and then X and Ed will save the file to the root directory of your workbench disk.

Ok, so now we have our 'script' file, the next step is to actually put an icon to it so that we can use it with IconX from workbench. We could go into an Icon editor like IconEd on our workbench or one of the many excellent PD icon creators available like *IconMeister* and create one, but that's a lot of work. An easier solution is to simply pinch an icon from somewhere else. Here's how we go about it...

First off, open up the utilities drawer on your workbench disk and fire up NotePad by double clicking its icon. NotePad is a simple type of wordprocessor that Commodore supplied with their workbench disks. Once NotePad has fired up, type something simple into its editing screen like "test" and hit return once. Now save this file by using the pull-down menus. I.e: Using the right mouse button, go to the pull down menus at the top of the screen and select the "Save As" menu item. Another little window will appear asking you for a file name to save the file you have typed. (In our case, all it will contain is the word "Test"). In this window, type in:

Ram:Edit-SUS
and hit return. This will cause NotePad to save the file to the Ram disk along with the Icon which we are about to pinch.

Ok, we have finished with NotePad so close it by clicking on the Close gadget in the top left corner of it. Now double click your Ram disk icon and you should see a NotePad created icon with the name "Edit-SUS" sitting in there somewhere. If there is not, then you may have done something wrong and may need to repeat the exercise.

Once you have your Icon there, you're halfway home. Close up the ramdisk and open up a Shell or CLI. Here is where we do some thieving!

Making sure your Workbench is still in Df0: type the following com-

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on Melbourne - 03 749 4897**

mands in the CLI you've just opened hitting return at the end of each line:
CD Df0:

Copy Ram:Edit-SUS.info Df0:

Delete Ram:Edit-SUS

Delete Ram:Edit-SUS.info

Endcli

Here is a quick run down of what the above commands have done. The first line made sure that we were in the root directory of our workbench disk as this is where we saved our Edit-SUS file to from Ed. The second line Copied the icon we created with Notepad to the root directory of our Workbench disk where our proper Edit-SUS file is stored. The third and fourth lines simply deleted the file and icon we created with NotePad from Ram as they have served their purpose and are no longer needed while the last line naturally closed our CLI or Shell.

So let's check if all went well. Open up your Workbench disk by double-clicking on it and you should see your new Icon sitting somewhere in the window. If you can't, then use the slider gadgets to move it into sight and position it to where you would like to have it following up with a snap-shot to make its position permanent.

The final steps we are about to perform are to configure this icon to default to IconX instead of NotePad. This can be a little tricky sometimes so you will need to follow the instructions given fairly carefully:

STEP 1: Select the Edit-SUS icon by clicking on it ONCE.

STEP 2: Holding down the right mouse button, move up to the workbench pull down menus and select "Info". This should result in another window popping up on your screen giving you all the information on the icon that you have selected. We need to make some changes here.

STEP 3: Using your left mouse button, click once in the DEFAULT TOOL requester on the Info window. We don't want the information that's in there so we delete it either by using the DEL key on our keyboard, backspacing over what's there or easier still, just hold down the RIGHT AMIGA key and press X. This will clear the whole line.

STEP 4: Now type in the following into the Default Tool line that you have just cleared: Df0:C/IconX

STEP 5: Having done that, all that is left to do is to click on the SAVE-gadget at the bottom left hand side of the screen and the Amiga will save the information to the icon. That's it!

Double click the Icon now and watch what happens. IconX brings up a window which looks similar to a CLI and loads Ed the editor with your startup-sequence displayed all ready for you to edit and change to your heart's desire. From now on, if you ever want to edit your startup-sequence, all you need do is double click on your Ed-SUS icon and away you go. If you prefer to use a different type of editor rather than "Ed" when writing or editing script files, then simply substitute the editors name in the script file which the icon is calling.

There are a few other options which are also available for us to use with IconX but I don't want to go into them in any great depth at this stage to save confusion for you at these early stages of experimentation with it. They include little goodies like specifying the size of the window that IconX opens when an icon defaulting to it is used, making it wait a certain amount of time before it exits and also an "extended selection" facility where you can specify that the Dos Execute command be used to execute the scripts you write which in turn gives you greater flexibility. We'll be going into that in depth in later issues.

Finally, the above script example that I have given would have to be about as simple as you can get. Don't let this fool you as to the power that you have in your hands when working with IconX. With a little bit of thought and imagination, you could write some excellent and powerful script files which would be handy to be able to execute from Workbench when needed. Try writing one to set up a Ram disk with your favourite program for example and then another one to remove it and clear all memory. The possibilities are huge, experiment with them.

Letters

The influx of mail appearing in my post office box in response to this tutorial has been pleasing to say the least. Thanks to all those that have written in with kind comments and constructive criticisms. However a lot of people are falling into the trap of writing in with problems relating not to the CLI or the use of the Amiga it-

self. Quite a few requests have been coming through with readers asking why particular programs or utilities that they have gotten from the Public Domain collections of disks do not work or how to use them etc.

In response to these types of letters, all I can say is that it would be virtually impossible for me to try out the hundreds of individual programs written by various PD authors and sort out problems which you might be having.

The best course of action to take if you encounter a program or command from a public domain disk that does not seem to work for you is to first read and re-read any doc files supplied with it to make sure you are following the instructions given and meeting the requirements that the author has pointed out. If that fails, check to see if the author supplied an address where you can contact him to report bugs etc and write to him direct. The person who wrote the program knows its capabilities and limitations better than anyone and a lot of the time, your problems have also been encountered by other users. An updated version of the program might be available which fixes any bugs in your version.

Most PD authors love feedback from people using their software and happily write back to letters offering suggestions of how individual problems may be solved.

After all, all you are really risking by doing this is the cost of a stamp and quite often, with the support that some of these people provide, you might be pleasantly surprised with what you stand to gain.

When writing to this column for help, please try to keep your queries to issues relating to the CLI or general problems with the use of the Amiga. I don't object to people asking about problems with PD material and enjoy reading your letters to boot. But as I pointed out before, answers can only be given on the odd chance that I have used or have the utility in question myself, so a lot of the time, you may end up disappointed when you don't see a response to your queries.

Till the next time... ☐

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Communications UPDATE

by Jonathan Scowen

This month I reviewed ADAM BBS in Adelaide, which has the biggest file area in the southern hemisphere. Also there is some information on FidoNet and EchoMail (the electronic mail process used by BBS's).

Smileys

What are smileys? If you have been on any BBS that has several lines for chatting you would know, as smileys have been quite popular in chats. The basic smiley is ':)', if you turn your magazine on its side it will look like a smiley face. Before the smiley something like '<grin>' or '<sob>' was used but now it's ':)' or ':('). There are millions of different combinations of smileys and going by the manuals of overseas programs smileys are world-wide. Here are some more examples:

8-)
1-)
8-]
*:-)
8->
*:<

and the list goes on and on.

BBS REVIEW

Adam BBS

08 370 5775

SySop - Greg Hicks

ADAM BBS hardware is currently:

2 x 386AT Clone - 32megs of memory

Digi-board 32 port Comms

5 x 780 meg Hard Disks

NetComm TrailBlazer

Maestro HST/V32 19200 baud mo-

dem 24 modems in all

TBBS Software (32 line version)

ADAM BBS went online during July 1987 as ADAM LINK. The system changed its name slightly with the in-

troduction of TBBS software and joining the International Fido Net.

ADAM is a place where you could carry on a discussion on almost any topic and have a rational debate. ADAM BBS, unlike TeleInfo in Sydney (which was reviewed last issue), is mainly for the financial member, the new caller has a lot of options missing but it is worthwhile joining as it gives you access to the biggest file library in the southern hemisphere (3 Gigabytes). ADAM BBS has every PD disk available to download to the financial member (Fish, Topik, Best of Fish, and the rest).

ADAM now uses NetChat (see below) which brings a whole new dimension into the word 'chat' - you can now chat to four other BBS's at the same time!

TBBS - The Bread Board System

TBBS is probably the most popular multi-line BBS program available. To run TBBS you require a IBM compatible hardware, 640KB of user memory, a hard drive and plain-vanilla PC or MS-DOS 3.X.

The system allows 32 lines (in the next version it will be 64) to be connected to a host computer. TBBS conferencing facility allows users, no matter how widely separated, to hold a conversation on the topic of their choice.

TBBS Expansion Modules allow the increase of power and flexibility over information presentation. TBBS Expansion Modules include 'Question-and-Answer' capabilities (provides on-line order taking, voting, polling, user surveys and virtually any other data gathering task you may require), 'TBBS - The Data Base

System' (support DBase applications) and 'TIMS - The Integrated Mail System' (provides multi-user E-Mail capabilities). These expansion modules allows you to expand your system as you wish.

TBBS supports ASCII, XModem, YModem and in the next version ZModem (the new version is due in a couple of months). Now TBBS also runs NetChat (see below).

TBBS costs \$1200.00 Australian.

Distributed by Greg Hicks (SysOp of ADAM BBS - see above for his number)

NetChat

Running on ADAM BBS in Adelaide is NetChat. NetChat allows 4 BBSes to be linked. For example ADAM BBS is connecting to Newcastle (NSW), Perth, Sydney, and Melbourne several time a week for 45 to 60 minutes. The program was written by Phil Robertson from Adelaide and works basically in the following way:

ADAM BBS calls up a BBS and logs into the chat conference. Then everything typed is then retyped on ADAM BBS and vice versa except the state is put before it - for example: (e:WA) (1:JOHN SMITH) Hello, this is fun! (m:SA) (5:TOM JONES) Yeah, this is great.

This allows a person in Perth to talk to someone in Adelaide from their local BBS.

FidoNet

FidoNet is an electronic mail system. All of its participants and operators are non-paid volunteers. From its early beginnings as a few friends swapping messages back and forth, it has now grown to over 5,000 different systems.

FidoNet nodes are grouped on several levels. These are as follows:

NODES: A node is a single FidoNet address, and is the smallest recognised unit of FidoNet.

NETWORK: A network is a collection of nodes, usually in a relatively small geographic area. Networks coordinate their mail activity to decrease cost and increase mail throughput.

REGION: A region is a well defined geographic area containing nodes which may or may not be combined into networks. A typical region will contain many nodes in networks, and a few independent nodes, which are not a part of any network.

ZONES: A zone is a large geographic area containing many regions, and covering one or more countries and/or continents.

FIDONET: This indicates the entire public amateur mail network, as administered by the International FidoNet Association.

Every BBS gets an address or FidoNet number which refers to whereabouts in the world they are. The FidoNet number is written (X:YYY/ZZZ) where 'X' is the 'Zone' and 'YYY' is the network number and 'ZZZ' is the node number. The Zone usually refers to the country or a certain area (for example 3 is Australia/Asia). The network number is the BBS where it is all processed before being sent to the node which are the individual BBS's.

EchoMail conferences

An EchoMail Conference is a discussion on a particular topic which takes place on a number of FidoNet bulletin boards. A message placed in an EchoMail Conference on one bulletin board is then "broadcast" to all the

other boards in the network which are participating in that conference. There are a number of conferences available, including international ones, which cover a wide variety of subjects. Not all conferences will necessarily be available on all FidoNet bulletin boards.

What EchoMail does for you is allow you to talk to people on other FidoNet bulletin boards across the country and the world. All you have to do is enter a message in one of these areas, and it is automatically sent out to all FidoNet bulletin boards participating in that particular EchoMail Conference.

Here are a few hints on using Echo-Mail:

If you wish to send a private message you should not use a EchoMail area but a FidoMail or NetMail conference where it usually asks for the address (for example (3:721/744)) then who it is to, the subject and so on. This is because if you want to write a message to a friend in, let's say, Sydney and you use an EchoMail conference it will be sent to all BBS's who

participate in the conference, so it could be received in Perth, Adelaide, Africa, North America, or somewhere else.

Never write a message in an EchoMail conference thanking someone for replying as this will be sent to all the BBS's around the world. Also, commercial advertising is not allowed.

When you reply to a message you should give enough information so people will know who you are replying to.

EchoMail costs a lot as messages have to be sent locally, within Australia and overseas. Unless sponsored, the SysOps involved bear the cost of the phone bill, users are not charged for this service so don't abuse the system.

If you have any questions or comments I can be contacted at:

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The Geos Column

by Owen James

First up we're going to put GeoWrite 2.1 under the microscope and (hopefully) find out if it's worth the update.

GeoWrite 2.1

GeoWrite 2.1 is a BIG improvement over earlier versions. Some of the features on the 'new to 2.1' list are:

- individual paragraph formatting
- decimal tabs
- headers and footers
- three different types of line spacing

The first thing you'll notice when you boot into Write is that you have a whole new row of options to select just under the regular menu bar. These allow the setting of justification and line spacing.

Your text can be:

- left justified: everything lined up neatly along the left margin
- right justified: everything lined up neatly along the right margin
- full justified: the text is lined up against both margins to give a 'block' look.

Line spacing gives the three options of either single spaced (no space between the lines of text), one-and-a-half spaced (the equivalent of half a lines is left blank in between lines of text), and double spaced (where there is one complete line left blank in between the text).

Headers and footers

Headers and footers are a new and welcome addition to GeoWrite. These allow either text or a graphic image to appear at either the top or bottom of each page. They're great for things like chapter names, stiff copyright notices, and even a smiling face on each and every page of your english essay in hope of scoring more marks.

The real power of headers and footers is only fully realised when you use it for information that changes with each page. You need never manually number pages again! You can

even have the time and/or date automatically stamped onto every page of your document.

Just a word of warning here about headers and footers: If you try to add, or change the size, of a header or footer in a really large document (of War and Peace proportions), be prepared for a long wait. Because the amount of available room on a page changes when you change the status of headers and footers your entire document must be re-formatted so that everything fits and looks dandy. Think about headers and footers BEFORE you start to save time later. Or you could wait till the end of your marathon typing session and put them in place just before you leave for a long holiday. By the time you get back they should be ready.

Provision is made if you do not want a header or footer to appear on your front page. Just select the 'title page' option and the first page of your latest masterpiece can be rid of a page number or whatever.

Search

Also new is the addition of a search function. How many times have you finished a three hundred page document when you suddenly realise you've spelled someone's name wrong - at least fifty times? That's the beauty of search and replace. Just type the incorrect word into the requester box along with the correct one and hey presto, all the changes have been made automatically. If you just want to search a document for a word, phrase, or whatever, use the search function without replace.

GeoWrite will now even allow partial or whole word searches. For example, if you wanted to find all the words that start with the letters GEO you could very easily. Another feature is the choice between searching through all pages, or the current page only.

A quick tip here for Write users: If

you find you forget a person's name or want to check on a reference later, type something like a double asterix (**). Later, when you've finished typing out the main body of the text, it's a simple job of searching for the ** using the search function.

Decimal tabs are new, and very powerful, too! They're great for aligning the decimal point in a long list of numbers, or even a list of any kind. Take a short exam question as an example:

IBM is an acronym for:

- A. Intelligent Big Machines
 - B. International Business Machines
 - C. 'Ideously Boring Machine'
- See their use?

Printing

Users will be pleased to know that this version gives greatly improved printing options. You can select the range of pages you want printed, whether the paper is a single sheet or tractor feed, and can even select the mode of print. For instance you can print regularly so that the GEOS fonts print out exactly the way you see them on screen, use the printer's own font (but still retain styles such as underline and italics), or use the fast 'draft mode' for proofing your text.

GeoWrite 2.1 still hasn't improved speedwise, though I think the 64 is at fault here and not the software. There's still the normal frustration of typing faster than the screen can display it. This really rules out GeoWrite as a general purpose word processor. Sure, for fancy documents I'd use nothing else, but it's just too slow for normal use. Using small fonts helps immensely. Using the Turbo Master CPU in conjunction with GEOS offers the ULTIMATE in 'power' computing. Speed freaks shouldn't be without it!

To overcome the speed hump, I use another word processor and then import it into Write using Text Grabber. This is another really useful application for GEOS that allows files from other WPs to be quickly and simply imported. Great if you can't stand the speed but still want the fancy print.

All formatting (such as underline, italics, margins, justification etc) will arrive in GeoWrite in perfect condition, ready for printing. If you use a word processor that isn't supported (like Kwik Write) you can still import it in 'Generic Form' which reads all

the characters out of any source file. Of course with this you'll need to re-format once it is imported into Write.

Also in the Writer's Workshop package is GeoLaser, a program for printing your GEOS files on a laser printer. The only laser printer supported by this program is an Apple LaserWriter. As yet, I've heard of no success stories about using other makes of printer.

To get the most out of GeoLaser you should use the laser fonts provided. Instead of the usual jaggy printout of GEOS fonts, the laser fonts use the LaserWriter's internal fonts which give astounding quality.

The only problem is finding someone with a LaserWriter. In America there are a number of bureaux set up for providing laser printing services and even support GEOS users. We just need some printing services here in Australia to give GEOS their support.

Anyway, that's GeoWrite 2.1. I purchased it as part of the Writer's Workshop package for a very reasonable

price. GEOS 1.3 users who haven't upgraded to 2.0 would do well to at least upgrade to GeoWrite.

Tips and Tricks

If you'd like to organise your GEOS work disk a little better by having a different page for each type of application file - you can! Just create a short GeoWrite document (a couple of senseless words will do) and leave GeoWrite. Move the file icon to the last page of deskTop and select the file duplicate option. Keep duplicating until a new page is created for the latest file. At this point, move all the icons you've just duplicated into the border and then transfer them to the new page. Keep going until you have as many pages as is required. These useless files can then be deleted. You could probably perform this process more efficiently by using a disk utility program while not in the GEOS environment.

If you're worried about deleting files by missing the printer icon at the

bottom of the screen and running into the waste basket, try this:

Make a copy of the system disk using any copier you like. Delete all the files associated with booting (GEOS kernal, system boot etc. You may need a separate copier to do this). Put all your regular work disk files on this copy.

GEOS still recognises this disk as a system disk, and so won't let you easily delete files by mistake. Files would need to be transferred to the border first before you could trash it.

As you can see, GeoTips are a little scarce so I want YOURS! Send them to me care of:

ACAR

PO Box 288

Gladesville 2111.

Next month we'll hopefully be looking at ways to get the most out of GeoMerge without annoying friends with obvious mail-merged letters.

See you next month!

□

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The C64 Column

by Owen James

C64 Virus?

Let's begin with a piece of reader mail this month. Norman F. Spark, of North Dandenong, writes: "We read a lot about the dreaded computer virus these days and about programs that can be purchased to detect/prevent the virus from getting into your system. However, to date I have been unable to find a program for the C64. Can you please help?"

Where, indeed, are our viral detection programs? Simple. There are NO viruses for the C64. Or could there be?

Viruses are small programs that normally have a destructive function. They often try to destroy disks, cause system crashes, and just generally make a nuisance of themselves. So why are there none for the C64?

To explain that you need to know a little about how viruses usually operate. Let's take an example. If I have a disk that has been infected with a 'boot-block' virus and I insert that into my Amiga, the small section of virus code is moved into memory as soon as I insert the disk. At this stage I have no idea that this has happened. This virus code then senses whenever I insert another disk and copies itself onto this new disk. This goes on and thus the virus spreads until every disk that I have inserted in the drive has been 'infected'. As well as doing this, the virus will normally do things like create read/write errors on the disk, wipe files, and generally do nasty things! The Amiga is an ideal environment for viruses because of its multi-tasking capabilities. This way a virus could create extensive damage without the user realising until it's too late. Now back to the C64.

People are under the belief that because the 64's operating system is stored on ROM, and not loaded from disk, it is totally immune. Well, here's something to think about. Let's break the virus process down into a series of steps:

- 1) Virus enters the computer from disk, unsuspected by user.
- 2) Virus is executed in memory
- 3) Virus keeps watch and senses

when an unprotected disk is inserted in the drive.

4) When disk is inserted, virus duplicates itself onto the disk, spreading the infection.

5) Virus might cause some damage to disk.

6) Go to step three.

Believe it or not, each of these steps could be carried out on the 64. Firstly, most of us know that with a few small changes the 64 can be fooled into thinking the disk directory is stored somewhere that it isn't. Modify this slightly so that when the user goes to check the directory, a small program (a 'virus') loads into memory instead. The normal directory procedure is carried out so that the user suspects nothing is wrong. (A small problem here - getting the program to

There are NO viruses for the C64. Or could there be?

LOAD in the right spot would be difficult. The code would have to sit on top of an IRQ vector which would change as the program loaded and automatically execute the program. Trouble is tricking DOS into thinking the disk sector pointed to is a directory listing also clobbers the bytes which would normally tell the C64 where to place the code. Of course, there is a way around this - Ed)

At this point there might seem to be one small problem. The C64 doesn't multi-task, so the user would know if a program was operating, right? Nooo! Remember those great little demos we see with scrolling messages, up-beat music, and spinning triangles? How is all this happening (what appears to be) simultaneously? THE IRQ!

No, the IRQ is not the name of some terrorist organisation (though I'd often wondered about its relationship to the CIA chips!). IRQ is just another one of those cute acronyms that are so common with computer technology, this one standing for Interrupt Request. The IRQ lets us run a small routine in the background automati-

cally while you carry out other tasks. The system's regular IRQ routine takes care of things like making the cursor flash, updating the jiffy clock, checking for keyboard activity etc.

Someone could patch their own routine into this so as to keep watch for the insertion of disks. A lot of people are under the impression that the 64 can't automatically sense when a disk is inserted. It can! Remember that little trick that I revealed in this column some months back? And remember that other tip to sense when a disk is write protected? There's our step three!

Copying itself onto disk is a simple task. Just wait for the user to perform some disk operation (to create a diversion) and then just perform a simple 'hidden' save (no file name in the directory) and doctor the directory location a bit. There's step four!

Step five? Well, I'll leave that for your imagination. And six? Just jump back to the start of the routine. Scary, hey? Now before you burst into fits of paranoia every time you insert a disk, I should point out that all this is a little far fetched.

Firstly, the 64 is a little bit limited in its resources. A virus the size of the one outlined above would produce a noticeable strain on the 64's modest memory. Secondly, the 64's processor speed wouldn't allow the virus to execute fast enough for it not to be noticed. And thirdly, what dead-head would want to create a virus on the C64 anyway? Still, the above provides pretty scary campfire story material!

There is another way to look at this subject. The definition of a computer virus is slightly confused. From my understanding, though, any program that performs a destructive task unnoticed constitutes a virus (of the trojan horse variety), but normally they have the ability to duplicate themselves. If we modify this definition slightly then we find that there are already C64 viruses.

There's a program that resurfaces from time to time that physically wrecks disk drives. The program seems innocent enough. It makes your drive hum tunes such as Waltzing Matilda, and the like. After your drive motor stops, you find the heads need realigning. Nasty stuff, and it's for the C64.

Look a bit harder and we arrive at one of the worst 'viruses' around. It's contained in the C64's operating system, and was created by none other than (enter discordant pipe organ sound...) COMMODORE! The virus/bug that I speak of? The save and replace problem.

Of course Commodore denies this is

a fault, so I call it the Clayton's Bug - The bug you have when you don't have a bug! With this 'problem', you try to save and replace and instead you end up with a corrupted disk. Check out the tips section for a solution to this bug, er... make that 'unexpected feature'.

More speed please

Again some mail, this time from Danny Collins:

"Can I recommend you write about the usefulness of an Epyx Fastload Cartridge - truly brilliant. Also, considering the amount of hours I spend using the computer, my caring mother bought me a 'SoftEyes' anti-glare screen that fits over the monitor. A vast improvement!"

Any equipment that increases the speed of the C64 is very worthwhile. I really can't do without either the Final Cartridge III or WarpSpeed. These won't actually increase the speed of the C64's operation - only improve disk speed.

If you're in the market for a speed-enhancing cartridge then consider the 'Turbo Master CPU'. This not only increases disk speed, but also the speed of the C64 in general. It provides great things for disk operation, such as a built-in DOS wedge, and makes GEOS look like the fast and efficient software that it was designed to be. The Turbo Master may cost a bit more than WarpSpeed, but believe me, you won't regret it!

And of course anti-glare screens are very worthwhile if you spend a long time in front of a monitor. Even casual users will benefit.

If you, like me, are after a cheap solution to everything, then try using a pair of sunglasses when using the computer. It will cut back a lot of the glare and take quite a bit of strain off the eyes. Try a pair with an amber tint in them, which are great for stopping glare from monitors

PRG to SEQ

Don Henry, of Aldavilla NSW, runs packet radio using C64s. He uses two small programs written in BASIC to convert PRG files to SEQ files so that they may be transmitted to the receiving station via a BBS, for instance. The problem is that the conversion programs are very slow in operation, even when compiled. Anyone out there up to the task of rewriting it in machine language? Write to me and I'll pass the BASIC programs on to you.

Do the files need to be in a standard SEQ format to transmit? You could turn PRG files into SEQ by first loading them into memory, then typing SAVE "file name,S,W",8. This saves in a type of SEQ format. This may not work in this

case, though, since it appears you are doing more conversions than just to SEQ. Any users out there using their 64s for a similar purpose? Any advice would be greatly appreciated.

Tips and Tricks

I'm looking at extending this section to include tips for productivity software, bug reports (and hopefully work-arounds), and small utility-styled programs. So, whether it be a tip for GEOS, a troublesome bug you'd like to report, or whatever, let us all know about it!

• Michael Rideout has another short program for us this month. This one will take a non write-protected disk and set its block-free information to zero, thus protecting it from further use. To use it, simply run the program, insert a disk into the drive, and press a key.

```
100 DIM Q$(255)
110 PRINT CHR$(147): POKE
53280,0: POKE 53281,0
120 PRINT "INSERT DISK TO BE
PROTECTED AND PRESS A KEY"
130 POKE 198,0: WAIT 198,1
140 PRINT"WORKING..."
150 OPEN 15,8,15: OPEN 5,8,5,"#":
PRINT#15,"U1:5,"0,18,0
160 FOR I=0 TO 255:GET#5,A$:Q$
(I)=CHR$(ASC(A$+CHR$(0)))
NEXT
170 CLOSE 5
180 FOR I=4 TO 71:Q$(I)=CHR$(0):
NEXT
190 FOR I=76 TO 143:Q$(I)=CHR$
(0): NEXT
200 OPEN 2,8,2,"#"
210 FOR I=2 TO 255:
PRINT#15,"B-P:"2,I: PRINT#2,Q$(I)::
NEXT
220 PRINT#15,"U2:2"0,18,0
230 CLOSE 2
240 PRINT#15,"I": CLOSE 15
250 PRINT "FINISHED!"
```

• As mentioned earlier, the save and replace problem has the potential to be very harmful to disks. In case you don't know, 'Save and Replace' saves the latest version of a program over a previous one with the same name. Sounds simple enough. The problem is that it saves the new version of the program BEFORE deleting the old one. If you are close to having the disk full you might find that trying to use this command will corrupt your disk.

The safest way is to perform the scratch manually. Type :

```
OPEN 15,8,15,"SO:file name":CLOSE 15
```

and press return. Now save the new version.

If, however, you are one of those adventurous/suicidal users who feel absolutely compelled to using dicey commands, the safest method for saving and replacing is : SAVE "@0:file name",8

• If you own a freeze cartridge then you can make your gaming addiction just that little bit easier. Games that take a while to get to certain levels and don't have a SAVE GAME option can be very frustrating, so when you get to a level you know you're going to have difficulty with, freeze it at that point and save it. When you reload the frozen version the game will continue on from where you left off.

The C64 user software compilation disk is coming along nicely, but I still need more! What I want to see now is things like small utilities and programs to work under GEOS, some GEOS clip art, and even some picture files that have been created in your favourite graphics program. I can convert from most formats. Keep the software rolling into me!

There's another month of the C64 Column all wrapped up. Remember that I want to hear from YOU! Tips, tricks, questions or suggestions, I want them all. Write to me care of:

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C64 Sound & Graphics

by Greg Perry

Sprite Colours

Last month we looked at sprite registers and creating the basic design. We have not yet set a sprite colour, but instead have used the default colour. The single colour for a sprite in high resolution mode is individually set for each sprite in its sprite colour registers using normal C64 colour pokes.

POKE V+39+SN, colour of 0-15

For example, to set sprite 2 to colour [CYN] POKE V+39+3,3, and to set sprite 5 to colour [BLK] POKE V+39+5,0.

Exercise Number 5

Note: All the following exercises can be done with program lines as shown, or by directly entering the correct POKES followed by RETURN.

1. change the colour of your sprite 0 to cyan (colour value 3) with

220 POKE V+39,3

(RUN program again)

2. Try the different colours and see which give a good match for the current screen colours. For example, instead of a single line 180, add the following lines to progress through all the colours:

220 FOR C=0 TO 15

230 POKE V+39, C

240 FOR K=1 TO 1000: NEXT: REM WAIT

250 NEXT

Expanding Sprite Images

The sprite pattern is normally displayed on the screen as 24 X 21 pixels. However, the VIC II can also display the image with either or both of these dimensions doubled. This is done by setting the bit 7-0 in either the X or Y expansion registers corresponding to the sprite number.

Expand sprite by 2 horizontally (X direction)

Expand POKE V+29, PEEK (V+29) OR (2^SN)
(set bit to 1)

Normal POKE V+29, PEEK (V+29) AND (255-2^SN)
(set bit to 0)

For example, to X expand the following sprites

sprite 2 POKE V+29, PEEK (V+29) OR 4

sprites 2, 4 POKE V+29, PEEK (V+29) OR (4+16)

and to reset sprite 2 to normal

POKE V+29, PEEK (V+29) AND (255-4)

Expand Sprite by 2 vertically (Y direction)

Expand POKE V+23, PEEK (V+23) OR (2^SN)

Normal POKE V+23, PEEK (V+23) AND (255-2^SN)

For example, to Y expand sprite 2

POKE V+23, PEEK (V+23) OR 4

Obviously, if only one sprite is in use, the ANDs and ORs need not be used. Simply POKE the register with 2^SN to set the bit, and zero to clear the bit. The same applies for more than one sprite once you understand the correct numbers.

Exercise Number 6

1. expand your sprite 0 in X direction by POKE V+29,1 and contract to normal with POKE V+29,0.

260 POKE V+29,1

270 FOR K=1 TO 1000: NEXT

280 POKE V+29,0

2. expand sprite 0 in Y by POKE V+23,1 and contract with POKE V+23,0

290 POKE V+23,1

300 FOR K=1 TO 1000: NEXT

310 POKE V+23,0

Sprite-Background Priority

Whether the sprite image appears in front of or behind the current screen image is set in the sprite-background register. This is normally set to favour the sprite but is changed by setting the bit 7-0 corresponding to the sprite number.

To set background priority (bit = 1)

POKE V+27, PEEK (V+27) OR 2^SN

To set sprite priority (bit = 0)

POKE V+27, PEEK (V+27) AND (255-2^SN)

Exercise Number 7

1. Set background to have priority over sprite 0 by directly entering

POKE V+27,1

Now LIST the program to see if sprite is "under" or "above" the screen characters.

2. Reset for sprite priority by

POKE V+27,0

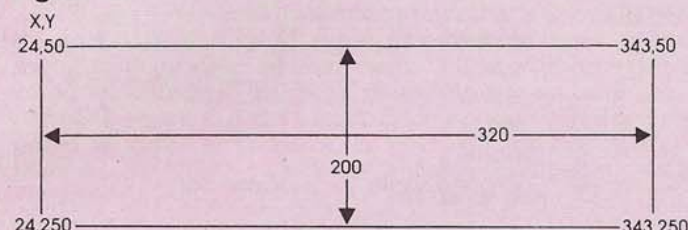
More on Screen Positions

Since sprites are bit-mapped images, the normal

screen of 40 columns by 25 lines is defined by its bit coordinates. With each column being eight bits (pixels) wide and each line eight bits high, the total screen area is 320 pixels wide by 200 pixels high.

Theoretically, the range of X is 0-511, and the range of Y is 0-255. However not all these positions are on the screen. The boundary within which a sprite will be fully visible (the visible viewing area) is defined by the following X and Y coordinates:

Figure 5-4



Obviously, if the sprite is given coordinates outside these it will not be fully displayed, if at all. The off-screen values allow you to move the sprite on or off the visible viewing area smoothly.

Since a non-expanded sprite is displayed as an image of 24 pixels wide by 21 pixels high, and the sprite position is referenced to its top left-hand corner, the image will only be fully visible on the screen if placed at least 24 pixels from the right-hand side and at least 21 pixels

from the bottom of this visible viewing area. Sprites expanded in the X direction are displayed as 48 pixels wide and when expanded in Y are displayed as 42 pixels deep. The corresponding adjustments must be made.

By superimposing a 24 by 21 rectangle on the screen above, it is easy to calculate that for non-expanded sprites, the fully visible ranges are when X is greater than or equal to 24, but less than or equal to 320, and Y is greater than or equal to 50, but less than or equal to 229, as represented by

$$24 \leq X \leq 320$$

$$50 \leq Y \leq 229$$

and for expanded sprites, the fully visible ranges are reduced to

$$24 \leq X \leq 296$$

$$50 \leq Y \leq 208$$

If you wish to "bounce" a sprite around the screen, as we will do later, it is only necessary to keep the sprite within these limits.

Horizontal Positioning

The X axis positioning is complicated by the fact that the allowable range is 0-511, the visible range is 0-343, but no single byte can contain a number greater than 255. How is this overcome?

If the X position is greater than 255, it actually requires nine bits to store the number. In a nine-bit num-

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ber, the ninth bit has the value 2^8 or 256. This ninth bit is stored in the second X register called the X Most Significant Bit register, a single register which keeps track of the ninth bits of all the eight sprite X positions. Each sprite is allocated a bit in this register from bit 7-0 corresponding to the sprite number. If the X position is less than 256 then this bit should be cleared (set to 0), but, when the X position is greater than 255, this ninth bit must be set (to 1) and the X value adjusted by 256.

Extra care must be taken with this register if more than one sprite is in use, because the MSB register must be set for the particular sprite of interest without changing the corresponding bits for the other sprites.

In practice, if you keep the X value less than 255, you can ignore this register, but if you wish to use the full range of X values, you must ensure that the MSB register is cleared when not in use by setting the corresponding bit to 0.

Let's look at a number of cases to see the most efficient method of dealing with each situation. (The Y position is set as above.)

Case 1: any number of sprites, $X < 255$

In using sprites where the X coordinate is always less than 255, the sprite position is set simply by

Register	To Use
Sprite X Position	POKE V+SN*2, X

Case 2: one sprite, full range of X

To use the full range of X values with one sprite only, the MSB register must be set only when $X > 255$.

This is usually done with IF statements to check whether $X > 255$ and then setting the resulting values by

```
IF X>255 THEN POKE V+16,2^SN:POKE V+SN*2,X-256
IF X<256 THEN POKE V+SN*2,X:POKE V+16,0
```

It appears to be slightly better to set the MSB register first if moving right and vice versa when moving left. This helps eliminate the "echo" image which may appear in the time between setting both registers. Try it both ways and see what happens. Alternatively, to eliminate any possibility of an "echo", turn the sprite image off, move the sprite to the new position, then turn the sprite on again.

Another slightly more elegant method is to use the C64's logical operators to do the full job with the following two lines:

```
POKE V+SN*2, X+256*(X>255)
```

(This expression will POKE a value of X-256 when X is greater than 255.)

```
POKE V+16, 2^SN+2^SN*(X<256)
```

(This expression will poke a value of 2^{SN} only when $X > 256$, otherwise a value of 0.)

Case 3: several sprites, full range of X

If more than one sprite is in use, the MSB register for a particular sprite must be set by

```
POKE V+16,PEEK (V+16) OR 2^SN
```

and cleared by

```
POKE V+16,PEEK (V+16) AND (255-2^SN)
```

This ensures that only the correct bit for the desired sprite is set and others are not altered. The IF statement

in Case 2 should be altered to reflect these changes.

Demonstration of Positioning

The following program displays a sprite consisting of a rectangle defining the sprite boundary and an arrow pointing to the sprite X and Y coordinate at the top left of the rectangle. When run, the actual X\Y and Y coordinates are printed on the top of the screen. The sprite can be readily moved about the screen by connecting either of the two joysticks (fire button to expand) or using the following:

Movement	Key
up	1
down	left arrow
left	CTRL
right	2
expand sprite	space bar

Program: ARROW

```
10 REM (C) GREG PERRY, BRISBANE 1984
100 REM SPRITE POSITIONING DEMO
110 REM POKE DATA INTO MEMORY
120 FOR I=0 TO 63: READ N: POKE 832+I,N: NEXT
130 REM SET SPRITE POINTERS
140 POKE 2040,13
150 V=53248
160 REM TURN ON SPRITE
170 POKE V+21,1
180 REM DISPLAY SPRITE ON SCREEN
190 X=100:Y=100: POKE V,X: POKE V+1,Y
200 REM READ JOYSTICKS OR KEYS
210 JOY=PEEK (56321)-128: IF JOY=127 THEN
JOY=PEEK (56320)
220 REM FIRE BUTTON
230 IF JOY<>111 THEN 240
231 POKE V+23,( PEEK (V+23)+1) AND 255: POKE
V+29,( PEEK (V+29)+1) AND 255
240 REM MOVEMENT
250 IF JOY=123 THEN X=X-2
260 IF JOY=122 THEN X=X-2:Y=Y-2
270 IF JOY=121 THEN X=X-2:Y=Y+2
280 IF JOY=119 THEN X=X+2
290 IF JOY=118 THEN X=X+2:Y=Y-2
300 IF JOY=117 THEN X=X+2:Y=Y+2
310 IF JOY=126 THEN Y=Y-2
320 IF JOY=125 THEN Y=Y+2
330 REM MOVE SPRITE ON SCREEN
340 PRINT "[CLR,SPACE]X[SPACE]=[SPACE]"X;"
[SPACE]Y[SPACE]=[SPACE]";Y
350 IF Y>255 THEN Y=0
360 IF Y<0 THEN Y=255
370 POKE V+1,Y: REM MOVE SPRITE LEFT TO
RIGHT
380 IF X>345 THEN X=0
390 IF X<0 THEN X=345
400 POKE V+16,1+1*(X<256): POKE V,X+256*
(X>255): GOTO 210
410 REM SPRITE DATA
420 DATA 255,255,255,255,192,1,240,0,1,248
430 DATA 0,1,220,0,1,206,0,1,199,0
440 DATA 1,195,128,1,193,192,1,192,224,1
450 DATA 128,112,1,128,56,1,128,28,1,128
460 DATA 14,1,128,7,1,128,3,129,128,1
470 DATA 193,128,0,1,128,0,1,128,0,1
480 DATA 255,255,255,0
```

First of all, thank you to everyone who has written in to Australian Commodore and Amiga Review. Unfortunately we cannot promise to answer every letter individually, but we'll do our best. If you keep your letter reasonably short and to the point it will be published.

We do read all letters regardless, and often the answers you're after may appear in one of our regular columns. We can answer quick questions over the phone, however we recommend you contact your local user group or software supplier for in depth problems.

System update warning

I thought I would write a warning to those people who might consider updating their system by selling their old system.

I had recently advertised my Amiga 500 system in the Personal Trading Post (Brisbane) in an effort to upgrade to a A2000 (or 3000). After receiving a phone call, my wife gave the enquirer our address. The following day my wife returned home after taking me to work to find the Amiga, A590, 1084 and about 150 disks missing! The system, as well as a CD player were stolen. In hindsight I thought it would have been better to ask for the enquirers phone number and phone back to verify the caller before supplying my address.

I hope that any readers may use this as a warning to advertising anything, anywhere.

David Bayliss,
Paradise Point QLD

Ed: Sorry to hear of your bad luck. Perhaps selling through your local user group could help solve this problem?

Speaking of pokes

My name is Scott Strachan and I have just purchased your mag for the first time, and I think it is very cool!

I have got a few pokes and things for you.

Poke	Effect
120,0	Disable keyboard (no way out except reset or turn off)
650,128	Enable key repeat (hold key down and it repeats)
650,0	Disable key repeat
53270,0	38 column
53270,8	40 column

ROM Routines

HEX\$	DECIMAL	Effect
\$E544	58692	Clear Screen (Initialize Screen & Link Table)
\$E518	58648	Clear Screen (Initialize Screen & Keyboard)
\$FF5B	65371	Clear Screen (Initialize Screen & VIC Chip)
\$E566	58726	Home cursor
\$FCE2	64738	Reset (Power on Reset)

May I suggest some ML Tips in future editions of your columns.

You said something in your article about a memory location being changed at \$0103. I'm not sure but I think the number is different for different cartridges. For the Action Reply V5 Pro. it should have #\$8E (HEX). I will

Letters TO THE EDITOR

be getting three or four different cartridges soon so I'll send another letter then if they are different.

Here is a small BASIC listing which will detect errors (1541):
OPEN 15,8,15:INPUT#15,A,B\$:
PRINTA,B\$:CLOSE15:END

When your drive LED starts flashing and you have come across some sort of disk error, while the light is still flashing type the above program to find out what sort of error. To find out more about the error look in your disk drive manual.

Oh! I forgot a poke! When some messed-up I/O operation causes the 1541 to become "not present" you can often fix it with POKE 144,0.

That's all I have for the moment but you will hear from me again.

Scot Strachan,
Woodridge QLD

Ed: We're happy to publish this sort of info - send it to us here at the magazine and we'll either place in this letter column or pass it on to our C64 columnist Owen James for inclusion in his regular monthly pages on the C64.

Informative magazine

I'd like to start off by saying congratulations on producing an informative and all Australian magazine. I must admit that I am saying this after only purchasing my first copy of ACAR (Vol 8 No 1) but I am looking forward to the next issue already, as I am having problems in putting this one down. Every time I open it I seem to find something new, even re-reading articles provides excitement at the possibilities of what I can do with my Amiga.

Now that I have the grovelling out of the way, I was wondering if you could provide some assistance?

I currently own a 1 meg A500 and recently a very generous friend gave me an old Microbee 300 baud modem, commonly referred to as a "Beemodem". Unfortunately it came without instruction book and as I do not have much experience with modems, I am at a loss on how to use it. As the Australian company that used to make Microbees went under about three or four years ago, I have not been able to find a copy of the manual anywhere. I remember reading an article approximately six years ago in the *Australian Personal Computing* magazine establishing them as a good, cheap modem, that could be used on IBM compatibles, so I used this as a basis that they could be used on Amigas as well.

I am currently using *Access!*, a public domain communications program, but as the "Beemodem" isn't a direct dial (I gather this because it has a phone attached to it), *Access!* apparently requires some keyboard commands to allow it to access the modem. I've tried reading a few books on modems to try and find these commands but they always end up saying look in the owner's manual for the specific commands. I need help!

I'm only a student currently and cannot afford a new modem so I am greatly looking forward to seeing if I can get this one operational and, as such, join up with the rest of the world via my computer (even it is only at 300 baud). So any assistance you could provide would be greatly appreciated.

Just one last point that I think you may be interested

Correspondence

in. I have recently returned from a nine month stay in New Zealand. Commodore had just released a new advertising campaign for the Amiga there before I left, starring that all time favourite Australian actress and personality, Kylie Minogue. And here is everybody complaining about Commodore doing nothing in trying to push the Amiga along. I wouldn't say that it was a bad choice or anything, but I do believe they could have done better, I mean, John Laws wasn't that bad, was he?

Is there any chance of having an article on the creation of demos as it is one thing I would dearly love to do on my Amiga, but I'm at a loss on how to put them together (combine music from say SoundTracker and pictures and/or animation from paint programs).

Andrew Exley,
Maryborough QLD

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Ed: Try picking up the phone, dialling the number of the system you wish to call, and when you hear the high pitched tone, flick the switch on the front of the modem from phone to modem. This is a manual modem by the sound of it - one which won't respond to any sort of commands from a modem program. It probably only handles 300 baud. For more information see the article in our 1990 Amiga Annual on communications.

Thanks for the info on the new ad campaign. We've seen a fab poster of Kylie Mole with the result of some colourful prose created on her Amiga. It's catchy looking enough.

Waterproof magazines

In subscribing to your magazine I wish to request that it be sent in a waterproof package and between two pieces of cardboard with DO NOT BEND on the outside. I would really appreciate this as I have a mailperson who loves bending my magazines and with this being an important magazine, it will be stored properly and used for reference and not cut up or left any old how around the place.

It would also be nice if you could include a small program that one could do each month (a volcano erupting or something like that).

Well, I hope my request is not too steep as your magazine is worth looking after properly. I intend photocopying or just copying the things I want to send away for so I don't have to cut it up. Please I hope you carry out this request and consider my second one.

Mrs. C. J. Naylor,
Landley QLD

Ed: We will arrange a VIP courier service to bring your magazine in large armoured van to your front door!

Seriously though, I am sure you request would be shared by many readers, but it is unfeasible economically and very time-consuming for us to package each magazine in plastic and cardboard.

Perhaps a kind word to your postie would be enough for him/her to put your magazine out of harm's way, maybe on the porch?

New education section

May I say how pleased I am to see an Education section appearing in your magazine. As a primary school teacher, I have often felt that the educational capabilities of the Amiga have been under estimated and generally ignored.

Parents and educators alike should be more aware of what the

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Amiga and its software can do for children across a range of ages - and I'm not talking about games. By reviewing educational software and promoting the education potential of the Amiga your magazine is benefiting not only the industry manufacturers, but much more importantly, the young minds who can get in front of a monitor.

Please keep up the coverage, it certainly complements the magazine and adds another major area of interest.

J. Hill
Waterfall, NSW

Ed: Thanks for your comments. We strongly agree. The Amiga deserves a strong position in the education market. We encourage local developers to keep in touch with us so we can keep everyone up to date with new prod-

ucts. It's great to see the number of titles in this area growing, and more people turning the many creative and productive Amiga software packages to educational purposes.

Mail order hassles

I have a couple of gripes relating to some advertisers in your and other magazines. Some mail order firms don't seem to realise the costs of phone calls from country areas. When some advertise they don't quote prices, they just say CALL or SPECIAL. Some have a 008 number, but for orders only. I tried calling a 008 number for the price of programs only to be told this number is for orders only. Why is it some firms advertise all items listed are in stock, but when you order them, some of the items are on back order. I have

waited up to 28 days for one order to be filled.

J. C. Wilson
Lavington, NSW

Ed: Your experiences are not unusual, however there are two sides to the mail order coin. These companies usually offer reduced prices by carrying less stock. Even those who have everything in stock at the time they place their advertisement may only carry limited quantities of some items. As many products must come from the USA, delays are possible on more unusual products. If we lived in a country with a huge market size we could all expect better service, but Australia is small and so we pay the price. When you call a 008 number, the mail order company is paying for your phone call. They have every right to impose restrictions on its use.

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Amiga-Live Issue Six

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FEATURE Game

Drip: A full blown arcade game that's very out of the ordinary. It's up to you, as the 'Drip', to rust your way up 15 floors and get the juices flowing again. Avoid running or dripping into the acid, plasma and icecubes shooting out of pipes. You can get a little help from party balloons and bubbles that float by. Drip requires 512k of memory.

Entertainment

BoingDemo: Despite the name, this is not a demo as such - it's one of those try before you buy versions of a commercial game, only this one is very playable. The Boing part is a salute to the original Amiga Boing Demo! In this level and ladders game, you travel about on poles, ladders, teleport points and at all costs avoid the Boncing Amiga Ball!

RollOn: The play is a little like Boulderdash or Emerald Mine. Eight levels are included. To win you need to plan ahead and organise your moves carefully - sort of a joystick strategy. Includes a level editor to design your own games.

SlotCars: A complete working game of SlotCars...just one of four games in the commercial package known as: 4 IN ONE - EASY BUT FUN! The game concepts are simple but addictive. A combination of strategy and dexterity is needed to beat this one.

MoonBase: Adventure/Arcade - guide the shuttle ship to and from the mother ship with the valuable cargo. A multi-level lunar lander.

Strategy

Turn: A strategy game - the aim of which is to produce a given pattern of stones on the board. In order to complicate the game a little bit, all stones around the selected stone will turn either from black to white or from white to black. There are 18 levels available. There's also a pattern editor to design your own games.

China Challenge: Similar to the well known game Shanghai or Mahjong, the target of China Challenge is, to remove all parts of the pile, the so called Dragon, step by step. This dragon is composed out of 120 different pieces. A challenging past time, fun for two players too!

MarbleSlide: You've got to be quick to get this one. This is the fullest extent to which we've ever seen the old magic square theme taken - and one of the best. Slide the sliders to guide the marble home. But your time is VERY limited!

AmiGo: Strategy Board game for one, two or no players!

Workbench

SimGen: How would you like Saturn on your Workbench? SimGen makes your screen look like it is Genlocked. A number of example images are included. Much better than DropCloth or any other of these Workbench background programs. Doesn't slow your Amiga down either!

Flip: This screen gag will drive you nuts. Try it out!

Rocket: Yet another in the great line of Workbench gags. This little number releases a guided rocket which heads straight for your mouse pointer. If you don't move in time, on impact the whole lot explodes. Stick it on a friends Workbench for fun!

Business

'Liner: Our serious program for the month. If you develop out-lines for speech, writing, essays or reports, this program will help you organise and edit your material in point form - the best way to develop an outline. A fast solid program.

WO: A short and quick utility, which helps you to bring order in your addresses and codes them and saves them (password-encoded) on disk.

Graphics

MandAnim: If you enjoy madlebrots, you'll love MandAnim. Using a simple tweening process, you can select multiple key areas of a mandelbrot. MandAnim will generate as many steps as you specify between each frame creating an expanded animation file which you can load and animate in Deluxe Paint III. Some impressive graphics can be achieved.

Hennon: You can create some fabulous looking images using this program which lets you explore Hennon mapping. The program produces patterns like the one below using the formula $x = x * \cos(a) - (y - x * x) * \sin(a)$ and $y = x * \sin(a) + (y - x * x) * \cos(a)$. Several example images are included. Full 640 x 400 hires is supported.

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Atari Emulator \$5.50
Despite the German menu titles, it is possible to put this Atari emulator which runs in low, medium or hires to some use. Will run some applications and can be used to view Atari graphics. Assorted other utilities are included on the disk.

C64 Emulator \$5.50
A very full-blown C64 emulator. Lots of utilities, more menu control and transfer options than previous commercial programs. If you like what you see you'll need to purchase the serial interface direct from the U.S.A. - full details included with the disk. Full documentation on disk.

MandelBrot & Julia Collection

Brownian: A demo based on both fractal theory and brownian motion.

Cloud: A program that generates and displays fractal surfaces that look remarkably like clouds.

CPM: A program to compute mandelbrots via the Continous Potential Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make 3-dimensional pictures of the mandelbrot set. This is a batch mode type program so several images can be generated, one after the other, without any human interaction.

DEM: A program to compute mandelbrots via the Distance Estimator Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make high resolution black-and-white images. This is a batch mode type program so several images can be generated, one after the other, without any human interaction.

FractalLab: Investigate the realm of fractals and allow your imagination to run wild. Virtually an unlimited number of these self-similar curves can be created with FractalLab. Includes samples.

Fractals: A Fractal generator that generates many different types of fractals based on the iteration of complex-valued formulas. The program can generate the Mandelbrot and Julia sets, as well as the sets of more unusual formulas such as $\lambda \cos(Z)$ and Newton-R.

IceFrac: A fractal generator using the Diffusion Limited Aggregation algorithm, as described in the book "The Beauty of Fractal Images".

IFS: An Iterated Function System viewer which graphically displays iterated function systems and allows the user to interactively create the affine functions that define such systems. An IFS can represent complex pictures very compactly. Simple IFSs can describe an infinite number of different and interesting fractal displays. Includes a number of displays that the author and others have discovered.

MandAnim: A Mandelbrot Animation program that allows you to easily generate series of lo-res/16-color pictures. Features full mouse and/or keyboard operation, zooms, auto-save, high (cheat) speed, iconization, etc. The generated pictures all remember their positions and settings so they can be re-loaded.

MandelBlitz: Very fast Mandelbrot plotter with lots of handy functions such as color cycling, zoom, special palette control, file requestors and more.

MandelMountains: A program that renders three-dimensional images of blowups of the Mandelbrot set. Includes several example images.

TurboMandel: A fast mandelbrot program, written in a mix of C and assembly language. You can select between using floating point or integer calculation. Other features include a full intuition interface, cycling capabilities, extensive color control, a user definable iteration depth, fully implemented zoom, a 3-D display mode, support for extra halfbrite as well as interlace and hires, IFF load and save, accuracy selections, and more.

Mandelbrot: A fast Mandelbrot rendering program that uses some of the mathematical properties of the Mandelbrot set to greatly reduce the drawing time. Demonstrates graphics programming, assembly language, menus and IFF file I/O.

Mandel: Another mandelbrot generator program. New features and improvements include an AREXX interface, coordinates in sight, more state info saved with a picture, batch files, programmable functions, and more plotting options.

MandelVroom: A Mandelbrot/Julia-curve generating program that features five numerical generators (integer, ffp, ieee, 020, and 020/881) in hand-crafted assembly for maximum speed, online mouse selectable help for all functions, generation of multiple pictures simultaneously, a sophisticated user interface with shaded gadgets, etc. Some of the other features include zoom, magnify, color-cycling, contouring, auto-contouring, histogram, statistics, presets, extra-halfbrite support, overscan, orbits, pan mode, and more. Requires 1Mb or more of memory.

Mandel: Another mandelbrot generator program, with bits and pieces of code from C. Heath and R.J. Mical.

Plasma: A plasma cloud generator program that uses the extra halfbrite mode. Plasma clouds are a special form of fractal which show very smooth color gradations.

PolySys: An extended version of the OL-system described in The Science of Fractal Images. The basic algorithm has been expanded and modified extensively, and looping commands similar to those found in other Turtle graphics systems (Logo, etc) have been added. Support for three-dimensional drawing, with perspective, is also included.

Slicer: Slicer computes and displays images of the Mandelbrot and Julia sets. Unlike many Mandelbrot programs that generate pictures directly, Slicer computes and stores an array of raw data which it may then render into pictures in a number of ways.

ZPlot: Graphs formulas based on 4-D complex number planes. ZPlot currently supports the Mandelbrot set, Julia sets, and Phoenix curves, with over 500 mapping variations. The math functions supported include $\sin(z)$, $\sinh(z)$, z^2 , e^{z^2} , z^n , $\sqrt[n]{z}$, $\cos(z)$, $\cosh(z)$, $\tan(z)$, $\tanh(z)$, $\log(z)$, $\ln(z)$ and n^z .

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Support

If you have a more obscure problem, write down the error or problem and call for advice. It is best if you can also have the disk or program ready at your computer as this can help us help you quicker. Please use our Support number on (02) 879 7455.

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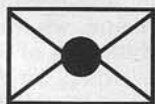
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UMS II Nations at War

While we're on a war-mongering theme, *UMS-II* claims to be the "definitive military campaign simulation. The game will let you battle it out across the whole spectrum of military combat, from continent wide campaigns down to individual theatre battles in either the Roman Empire, Napoleonic wars or World War II.

This game is "designed with the serious war-gamer in mind," and judging by the quantity of documentation that arrived with the IBM compatible version, it should certainly satisfy! Priced at \$89.95, *UMS II* is distributed by Questor.

Cinemaware goes bust

It brings a little tear to my eye to report that Cinemaware has gone to the wall. Bust. Kaput. Finished. This is a tragedy of almost epic proportions - it means there will be no more games like *It came from the Desert*, or *King of Chicago*, or *The Three Stooges*, or *TV Sports Football*. Bummer. Especially with CD-TV just round the corner, the medium that Cinemaware style games have been waiting for. Well, as they say in the Amstrad advert, "it's a business out there".

Lemmings competition winners

Another big response to our monthly competition. We asked you to make as many words as you could out of *Lemmings*, and here are the results.

Most readers gave up somewhere between 40 and 50 words. Yvonne Chandler, of Griffith didn't quit quite so easily. She found an amazing 99 words! Peter Gold, from Findon, SA, came second with 87 words, and David McKinney of Leichhardt, NSW came third with 81 words. He was joined by the ubiquitous Chris Wootton of Mornington Tasmania. How does he do it?

A special honourable mention goes to 8 year old entrant Andrew Gooch, who came up with 40 words and some top class Lemming cartoons - a prize is on the way to you too!



MINDSCAPE COMPETITION



This month Mindscape are giving away five copies of *Obitus*, valued at \$79.95. This is one of the hottest RPGs of all time, and even includes a T-shirt. Check out Greg Munro's review in this issue, where he says this ... "Psygnosis claim *Obitus* is a gripping combination of RPG and arcade action. For once they're being too modest. This is an excellent game, the best thing since sliced BARD!" Greg's right. *OBITUS* is HOT, HOT, HOT.

And you can win a copy. This month's competition is easy! Simply COUNT THE NUMBER OF WORDS in Greg's review (starting at "Psygnosis" and ending at "unreservedly"), write your answer on the back of an envelope and send it to this address:

MINDSCAPE OBITUS COMPETITION

PHIL CAMPBELL

PO BOX 23 MACLEAN NSW 2463

Winners will be the first five correct entries opened on April 29th. "Correctness" will be determined solely by the word count on the ACAR Entertainment wordprocessor. Okay? Get counting!

THE AMAZING COMMODORE CD-TV

They reckon the way to a man's heart is through his stomach. That's why Commodore served ham and cheese croissants and freshly brewed coffee at the recent launch of their long awaited CD-TV. They needn't have bothered - the machine is impressive enough to win hearts on its own.

If you haven't heard about the CD-TV, tune in. While official sources maintain CD-TV is an acronym for "Commodore Dynamic Total Vision," we all know that it really means exactly what it says. The machine lets you mess round with Compact Discs (CD) on your telly - and in the process introduces a whole new world of computer entertainment and education.

The CD-TV looks for all the world like a standard compact disc player, in a smart, matte-black case. Looks can be deceptive. There's a complete Amiga 500 lurking under the hood.

What we've got here, folks, is the perfect blend of Amiga power with CD data storage. Not only that, the machine also accepts disks in the CD+G standard - in other words, music CDs with built in graphics. These babies are on the market already in your local music store - read the small print, and you'll notice some discs come complete with digitised pictures. Not as high tech as you might like, but you get a still frame picture every few seconds, together with the words of

your favourite songs flashed up on the TV screen. Move over, Karioke!

Good fun, but the CD-TV is capable of so much more. The software on display so far is purely for demonstration purposes. For example, the kid's game KATIES FARM has been ported to CD format. In the game you get to explore a farm, by choosing locations from a picture menu at the bottom of the screen. By my count, the original game (which comes on two standard floppy disks) offered around fifteen different scenes and activities. Not much, but when you add the required sound effects and other data, that's all our favourite old 3.5 inch disks could manage.

Not so with CD-TV. Commodore Managing Director Pat Byrne promises games like *Katies Farm* will grow to around 300 megabytes - and that will still only fill half the disk! In other words, where there are now 15 scenes for your little brother to investigate, with the CD-TV there could be hundreds.

Another program on show was a world atlas. Ever wanted to check out a street map of New York? Or London? They're all here, as well as the standard world maps you'll find in any atlas. So lets visit London. Using the infra-red remote controller, I called up an alphabetical list of countries. The controller features a "cross-key" joystick and select but-

tons - with the joypad, I stepped down through the options. "United Kingdom" comes a long way down the list, so Commodore's techno-wiz Gary Mason suggested I use the index function - we called up a screen displaying the letters of the alphabet. I moved the cursor to "U", and names like Uruguay, USSR and United Kingdom flashed up on the screen. A few more key clicks and there it was - a full colour digitised street map of the city of London.

There's already an encyclopedia as well, complete with animations and real-life sounds. Good stuff, especially if you want to get educated. But how about some serious fun? Like a jet-fighter simulation with real life CD quality sound - including real life explosions? Or games featuring HAM animations at 25 frames per second - almost indistinguishable from live action video? The possibilities are endless.

The CD-TV is due for release at the WORLD OF COMMODORE show, which will be held at Sydney's Darling Harbour from July 12 to 14. Don't miss it! Priced at \$1495, the CD-TV will make a big impact on the world of home entertainment - if you're planning on buying a CD player or a new computer in the next few months, don't do it until you've checked out a CD-TV in the flesh! □

ENTERTAINMENT & TIPS

FOR THE C64 with Damian Caynes

got lame and melted or something. So, I'll be in charge from now on.

Okay, enough of this mindless babble (my forte actually) - if you have some news, views, or even just input on how YOU want your C64 coverage, then get your letters winging their way to me at this address:-

Damian Caynes, 4 O'Connor Drive,
Bray Park, NSW 2484.

Now for some tips...

CITADEL And ain't this a lurvely game? Checkout the

Hi there! Slartibartfast (aka Damian Caynes) of Futu-revision Designs here, to brng you up to date with all that's C64 in Oz!

It seems that the Ed's "infinite wisdom" fell short of the mark when he got "The Iceman" to do the C64 entertainment section, because Icey

rather late review in this month's Quickshots. These pokes are only for use with a cartridge (ie. Action Replay, Expert etc.) as the game cannot be restarted from a reset.

POKE 12848,0 - Infinite Lives.

POKE 7118,0: POKE 7148,0 - Infinite Energy

DROPZONE An oldie but a goldie! And I've got a terrific poke for this that will allow you to witness that marvellous explosion as much as you want (oh yes, it gives you infinite lives as well).

Reset and type:-POKE 3060,173: SYS 2064

TUSKER Another cool game from the guys at System 3.
POKE 35016,173 - Infinite Lives (Cartridge only)

BLASTEROIDS Sorry, cartridge only again!
POKE 11571,173 - Infinite Ships.

NINJA MASSACRE The only *Gauntlet* clone I've ever seen that spells "strength" as "strenght" ... Pathetic, eh? It should be renamed "Please Vomit Up My Nose", at least that gives a bit more enjoyment, gibber ...

The level passwords for this abysmal lump of code are: SNOW, BEER, STAG, BARD, HLE(?), HUGE, EASY, WIDE, and COLA.

Entertainment Letters

This month's mail bag is bulging at the seams - thanks to all those who have written. Address your ENTERTAINMENT LETTERS to Phil Campbell, PO Box 23, MACLEAN NSW 2463, or fax them on 066 452060.

Andy's Annual award anguish

Dear Phil, I've just read the ACAR Amiga Annual and was surprised that last year's "games" format was not retained. Giving out our annual awards for the best games of the year in specific categories was a pretty good idea and appreciated by quite a few people. You might have noticed that US software house Maxis advertised the fact that *Sincity* received the "Amiga Annual (Australia) Game of the Year Award" in their last batch of adverts for the game in US magazines!

Andy Phang
Maddington, WA

Ed: Sorry Andy. If I'd known my awards would make me famous all around the world I certainly would have done it again. Could you please send me one of the American adverts you mentioned - I'll frame it! Seriously, though, I had a long hard think about the Annual, and the fact is, it's designed to sell right through 1991. Awards apply to the previous year - which means they could be reading reviews of games released in January 1990 in November 1991, nearly two years out of date. That's why the 1991 Annual is a little more "forward looking" rather than retrospective. Even so, I'm happy to listen to constructive comments like your own.

First things first

Dear Phil, I have read the January ACAR (your section first of course) and I think the mag is getting better. Anyway I have included a high score for *Silkworm*. So good luck for the New Year.

Daniel Everton
Sunshine Beach, QLD

Ed: Thanks for the compliments, Daniel. Your score has been entered in the Hall of Fame.

Lode Runner help wanted

Dear Phil, I am a championship *Lode Runner* addict and have struggled my way through to level 23 and even after about 200 tries I can't figure my way through it. I can pick up all the chests but can't get across the screen to get up the !!!!! ladder. Tell me there's a kind soul out there who can put me out of my misery. Also is there anywhere in Australia that I can buy the hint book for it?

Norman Vernon
Bundamba QLD

Ed: Okay readers, this guy needs help. Any takers? Let us know before he does something desperate!

More help wanted ...

Dear Phil, Can anyone help me with *Rick Dangerous*? I can't get past the Egyptian level where you have to shoot the rock to make the stone fall down so that you can climb on and get to the next section where spears come out of the wall. I've tried everything possible.

Mark Peterson
Grafton NSW

Ed: You haven't tried everything possible, have you? 'Cause you still haven't found the right answer. At least you've got further than I ever did! Let's hope a clever reader comes to the rescue.

Bad Cat strikes again

Dear Phil, I am replying to your comments in the January issue of ACAR on *Bad Cat*. Enclosed is a copy of the game. I don't know if it was released commercially in Australia either. I have had this game since 1987 from overseas sources along with my other software although I haven't really played it.

Dragonstar
St Marys NSW

Ed: Some mothers give their kids the darndest names. Anyway *Draggy*, thanks for the letter and the disk. The old *Bad Cat* saga has certainly had a good airing now, so I think we'll put it to bed. Then I'll try out my new disk...

More help please

Dear Phil, Your section and the rest of ACAR Mag rules - ok? Could you please find out if anyone knows how to get infinite lives in *Ghosts and Goblins*, or infinite time in *Robo Cop* - both for the C-64.

Joshua Smith

Ed: Stay tuned - someone's sure to have an answer. And by the way, don't forget to check out our brand new, revamped, sparkling fresh C-64 Hints and Tips section.

Tab Amigas

Dear Phil, I recently purchased the *Amiga Annual 1991*. I was surprised to find out that the Victorian TAB used Amiga in their *Tabaret* (p45). I was wondering which software company designed and produced the games and if similar versions are going to be released for the home user? I would love to have an Aussie Rules Game.

I was also wondering if there are any software clubs in Australia which offer discounted games like in the UK as I don't have a lot of money to spend on all the games I would like.

Gavin Taylor

Ed: Very good questions, Gavin, and I'm glad you asked. I don't know who programmed the *TABaret* system - in fact, Commodore haven't even sent me a press release! The screenshots in the Annual sure look good, but I doubt that there'll be a home version in the foreseeable future. As to Aussie software clubs, there's actually a new one just about to start, offering discounts on a credit point basis depending on how much you've bought in the past.

Contact Andrew at Directsoft, phone 02 550 5630 for more details.

This sucker can't be serious!

Dear Phil, Your column is great, even if the rest of the mag was rubbish I would still buy it. Anyway enough sucking up! Here are some of my latest high scores which all took me ages to get with the exception of *Street Rod*. I have also sent some cheats and a few of these you don't need a cartridge.

I have had my C64 for about two years and would like to upgrade to an Amiga but I can't get the money. How about a competition to win one? I'm sure one of the companies in the mag would donate one.

Robin Hood

Ed: Give away an Amiga? Nah! After all, we're already giving away up to \$500 worth of software each month thanks to our friends at **Mindscape**. Who'd be silly enough to part with an Amiga? (Let us know if there's anyone out there who'd like to donate one!) Probably the best option for you, Robin, is to rob one from somebody rich, and give it to somebody poor - like yourself. Regards to Maid Marion.

Wings statistics

Dear Phil, I have just obtained my copy of ACAR and read through it with interest. In doing so I noticed that Neil "Tex" Miller sent some stats to you concerning his *Wings* campaign. I too have the game and have completed the campaign, flying every mission.

My pilot flew under the name Andrew "Ace" Skurrie and amassed the following statistics: My rank is Lt. Colonel. I've flown 243 missions, ditched 51 times and had no reprimands. I've had the following victories:- Dogfights 128/150, Bombing 38/60, Strafing 13/33, Monoplanes - 82, Biplanes - 181, Triplanes - 61, and Balloons - 53. That's a total of 323 kills - slightly more than the Red Baron!

I'm also a "Flying Knight," a "Miracle Worker" grade mechanic and a "Master" ranked gunner, and my stamina rating is "Ironman II." I have received all medals.

There you are. You asked for them, you got them! Concerning the game itself, it is nothing short of brilliant. I thoroughly enjoyed it and would recommend it to anyone. The dogfighting in *Wings* makes a fresh change from all those modern flight simulators where you simply "fire and forget". This is air combat in its deadliest form and to me is more challenging than flight simulators depicting any other era.

Andrew Skurrie
Newcomb VIC

Ed: Well done, Lt Colonel Skurrie. What we really need is a head to head link up so you and Tex can shoot it out!

Ocean outfall

Dear Phil, I have a gripe! Not with you but with OCEAN Software.

The problem is that cassette software from Ocean (namely *Rainbow Islands*) won't load with the Action Replay Cartridge 6 present. Now that's not so bad if you don't want to make

a disk back-up for your own use BUT if you hate sitting and waiting for 10-15 minutes for a tape to load it can be a pain in the BUTT!

I know it's not the tape because it loads OK without the cartridge. With it in it cuts the power while it is loading in the first minute or two.

I realise they don't want to be ripped off but fair go - I already paid enough money for the game! I don't like people who copy their games and hand them to all their mates but Ocean could at least have put a

warning on their software.

Finally, does anyone have the same trouble? How do I get around it?

Dennis Wyers

Ed: When you're a software producer, the name of the game is staying one step ahead of the people who make devices like the Action Replay cartridge. At the moment, OCEAN are winning. The solution to your problem? Watch out for Action Replay Version 7!

Hall of Fame

Send your high scores to Phil Campbell, PO Box 23 Maclean NSW 2468. Please mark clearly whether your scores are for C-64 or Amiga. And remember - NO CHEAT MODES ALLOWED!

AMIGA

ARKANOID 976,548 Kamikaze Andy
AMAZED 130,500 Chris Turnadge
BATTLE SQUADRON 99,999,999(c) Amos Burbridge
BEYOND ICE PAL 67,628(c) Chris Turnadge
BLOCKOUT 85,281 Stephen Lark
BOMB JACK 200,880 David Thompson
BUBBLE BOBBLE 1,200,460 V. van der Heyden
BUGGY BOY 103,350 David Thompson
CHASE HQ 5,504,010 Angelo Augustis
CONT. CIRCUS 4,628,880 Amos Burbridge
CRAZY CARS 88,084,840 Kristian Wehner
CRAZY CARS CHALL 2,827,835,680 Nick Mercuro
CRYSTAL HAMMER 43,847 David Thompson
CYBERBALL 475,000 David Marsh
DEVALIS 58,900 Peter Evans
DRAGON NINJA 246,400 Rod Matthews
DOUBLE DRAGON 124,830 James Knight
ELIMINATOR 246,570 Greg Munro
FLOOD 8,455 Embah Beaton
GEE BEE AIR RALLY 307,486 Kamikaze Andy
HYBRIS 1,828,075 Embah Beaton
IK+ 114,400 Scott Southurst
IMPOSSIBLE MISSION 68,880 Diane Urwin
INDIANA JONES L.C. completed Phillip Nicoll
SS 1,420,450 A G Smyth
KARATE KID II 62,000 Robert Dunn
LEATHERNECK 88,500 Shane Crossland
LIVE AND LET DIE 98,520 Merekee Beaton
MAJOR MOTION 60,858 Owen Webster
MENACE 998,481 Kamikaze Andy
MIDNIGHT RESISTANCE 228,755 Angelo Augustis
MINDWALKER 308,214 P Schumacher
MOUSETRAP 71,977 David Rich
N. Z. STORY 548,885 Embah Beaton
OPERATION WOLF 344,800 John Boyle
OUTRUN 26,331,122(c) Benjamin Moen
OFFSHORE WARRIOR 628,345 Jacob Booth
PACMANIA 3,250,140(c) Amos Burbridge
PINBALL MAGIC 332,390 Tracey Chilcott
PINBALL WIZARD 171,160 Aaron Sanderson
PIONEER PLAGUE 36,412 Keir Sooby
PLUTOS 128,450 David Rich
POPULOUS 208,800 Mal Cockburn
POW 612,885 David Thompson
RAINBOW ISLANDS 781,370 Jurrin Beaton
RAMPAGE 111,800 Kamikaze Andy
ROBOCOP 362,780 Rob Matthews
ROTX 183,050(c) Faye Doherty
SIDEWINDER 811,250(c) Amos Burbridge
SILKWORM (Hel) 1,838,000 Daniel Everton
SILKWORM (Jeep) 622,500 Daniel Everton
SKWEEK 1,748,380 Faye Doherty
SPACE ACE 22,140 Neville Clarke
SPEEDBALL 17,650 Amos Burbridge
STARWARS 5,722,822 C. Mings wave 33
STRIDER 113,950 Kamikaze Andy
SUPER CARS 13 races David Marsh

SUPER HANG-ON 25,042,850 David Worthing
SWORD OF SOOAN 384,750 Kamikaze Andy
TEEN.M.N.TURTLES 548,800(c) James Lecken
TEST DRIVE 112,815 Wayne Hoester
TEST DRIVE 2 308,387 Charles Edmiston
TETRIS 10,101 Cheryl Marsh
TETRIX Level 232 Stephen Lark
THUNDERBLADE 338,820 Rod Matthews
THUNDERCATS 622,300 Scott Southurst
TOWER OF BABEL 25,934(c) Stephen Lark
TURBO OUTRUN 100,280,819 Matthew Mantle
TURRICAN 1,302,850(c) Stephen Lark
TV-SPORTS F.BALL 189-0 David McKinney
TWINWORLD 24,840 Carol Love
TYPHOON 54,255 Owen Webster
VIRUS 14,576 Amos Burbridge
WHIRLIGIG 28,210 Nathan Allen
XENON II 1,007,830 Kamikaze Andy
ZOOM 68,903 Sally Pollock

COMMODORE 64

BATMAN 473,230 John Nunes
BATMAN-THE MOVIE 351,570 Joshua Smith
BANGKOK KNIGHTS 38,800 Nick Van Hooswyk
BOMB JACK 344,560 J Jacobs
BUBBLE BOBBLE 4,408,030(c) John Nunes
BUGGY BOY 118,610 John Nunes
CHASE HQ 9,220,121(c) ICEMAN
DOUBLE DRAGON 30,880 Joshua Smith
DOUBLE DRAGON II 255,190 Nick van Hooswyk
FAST BREAK 138 to 9 Chris Byrne
GIANA SISTERS 105,200(c) Russell O'Neill
GRYZOR 203,900 Paul Millward
IL MARADONA Level M N. Hooswyk
HAWKEYE 59,000 Nick van Hooswyk
IKARI WARRIORS 267,800(c) Ice man
INT. KARATE 138,300 Paul Millward
LAST NINJA II 34.2 sec(c) But how, Nick?
OPERATION WOLF 188,789 Kishore Ladbey
OUTRUN 8,438,787 Kishore Ladbey
PAPERBOY 103,100(c) John Nunes
POWERDRIFT 778,800 Joshua Smith
QUE-DEX 839 Chris Byrne
R-TYPE 1,280,500 Joshua Smith
RAINBOW ISLANDS 255,840 Melissa Worboys
ROBOCOP 82,250 Tim Lockwood
ROLLING THUNDER 222,740 Ice man
SALAMANDER 235,300 Paul Millward
STREET FIGHTER 127,050 C. Byrne (clocked)
SUPER CYCLE 212,210 Ice man
TEST DRIVE 36,144(c) John Nunes
THUNDERBLADE 1,734,040 Troy Morrison
THUNDERCATS 57,500 Chris Byrne
TARGET RENEGADE 330,450 C. Byrne (clocked)
TRAZ 54,560 Dave and Sue Upton
UNTOUCHABLES 70,230 Simon Watford
WONDER BOY 402,880 John Nunes

Scores followed by (c) indicate that the game has been completed.

ANDREW PHANG checks out a dramatic role-playing game that's never the same as the time before. You'll be a-mazed as you explore the prison corridors of ...

CAPTIVE

Scene 1

(in a Justice Cube): It's the year 2542. You have just been sentenced by the Federation Courts to spend two hundred and fifty years in suspended animation for a crime you did not commit. After hearing the verdict, you are immediately transported to a high security Federation prison. There your sentence is carried out. Everything turns black...

Scene 2

(in a prison cell): You're not sure how long it has been since you regained consciousness. It takes two days before you are finally able to move your limbs. As you search the cell, you notice the absence of any guards, human or robotic. Explosions rock the prison. There must be a war going on, you realise.

Your eyes then fall on a dusty, brown leather briefcase in the corner of the room. Further inspection reveals the briefcase to be a lap-top computer, which can be used to control four multipurpose droids somewhere in space. An idea hatches in your mind. You can use the droids to break you out of prison! Quickly you switch the computer on...

Scene 3

(in a dark and dusty Dungeon): *Captive* is a truly engrossing game, and certainly one of the best *Dungeon Master* derivatives around.

Noted British programmer Tony Crowther has designed an epic role playing adventure, with reportedly 65000 levels of play! This is due to the innovative "Architect" system,

which actually designs, randomly, each maze you explore, so every time you replay the game it will always present you with a new set of maps. The graphics are also quite excellent, with 32 colours on screen and its definitely on par with *Dungeon Master*.

There is a title tune but little in-game music, and sound effects are digitized. A unique aspect of the sound is that it is presented in "surround sound", which means you can actually hear aliens coming up from behind you, or passing by your side, with the right stereo equipment.

The on screen interface is quite efficient in controlling the four droids as they explore the many Federation bases throughout the galaxy. The top of the screen consists of five TV monitors, one for each of the droids and another for a "remote controlled" TV camera that the droids can leave anywhere. The rest of the screen is divided into left and right. On the left is the view of your surroundings (seen through the eyes of the droid leader), and the right side of the screen consists of the icons needed to control the droids. There are the basic compass direction icons, a disk save icon, a sleep and pause icon, a button that displays the health and gear of the four droids, and climb up or down buttons.

There are also eight symbols showing each hand of the four droids

(coloured red, blue, yellow, and green). You can click on these hands to perform some action, like punching an alien or using an item currently held in that hand.

Lastly, there are another eight white buttons in a panel to the bottom of the screen, which controls the TV monitors (at the top of the screen), as well as user aspects of the game (like the size of the text font).

Even when you consider that you won't be exploring all 65000 possible levels in the game, any successful attempt to finish *Captive* will take quite some time. Your droids will have to explore ten Federation bases, each filled with lots of different and deadly aliens. You can also choose to interact with the inhabitants of the bases instead of slaughtering them.

For example, Weapons shops are useful for getting new gear, fixing holes in your droid's armour, or getting a power recharge. Many of these bases have multiple levels, and you can push some of the walls to reveal

even more mazes. Power generators can be found on each of the bases, and to escape from prison, you must direct the droids into locating and destroying the generators.

Only after doing so will the location of the prison be revealed, and the droids can then finally come for you.

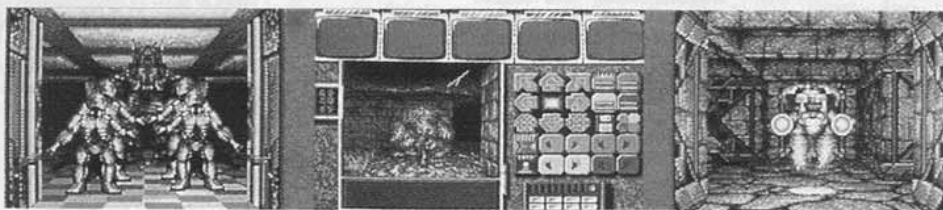
With some highly detailed graphics and a lot of playability, *Captive* has to be the best role-playing game made by the British yet. Watch out for an "Extra Missions" disk soon, as well as the inevitable *Captive II* from Tony Crowther (again), later this year.

Ratings:

Graphics:	88%
Sound/Music:	80%
Playability:	92%
Overall:	90%

Distributed by:

Mindscape
02 899 2277
RRP Amiga \$59.95



FUTURE BASKETBALL

PETER CHRISTOPHER puts on his helmet and jackboots for a quick game.

If you think the two rugby codes are barbaric affairs, played by brainless hunks of meat bent on destruction, you ain't seen nothing yet. *Future Basketball* promises more rough 'n tumble rule breaking than anything Rugby League has to offer. And more brawls to boot!

In fact, this new game is a poor public relations exercise for the National Basketball League's clean image. The tactics bear greater resemblance to World Championship Wrestling than the pass and dribble of the basketball you and I know.

The game is set some time in the 21st century, in a world plagued by huge long-term unemployment. The redundant millions are angry - violent crime has spiralled and the experts blame the lawlessness on boredom. (Sounds like the 20th century to me).

The solution to the problem is *Future Basketball*, a game where the

players feel no pity and no pain, and the only rule is to win. Here is the emotional outlet the masses have been waiting for!

Team names like The Evil Ones, Sin Bin Boys, Brothers Grim and Danger Dudes may give you an idea of the heavy metal atmosphere of this disk. And what about players' names - Rogue, Wolf, Crashman and the like.

Basically, the game is basketball as we know it. There's a court, a ball, and two teams. The aim is score baskets just like you'd expect. Let's stop there, though. Absent is an

umpire. Instead, the game starts with a drone bouncing the ball centre court and then scuttling off never to be seen again.

Obviously it's too dangerous out there for a human

referee.

The bunfight starts when the opposing giants start tackling you. They gang tackle you, they punch you

and they trip you. Of course, you're allowed to do the same; that's about the only fair part about it. Then there's another problem for nimble footed players - bombs hurled on to the court by hysterical fans. Other things land as well but I haven't figured out what they are yet.

So what's so good about *Future Basketball* and what makes it different? First, it looks good: The designers have succeeded in giving it a fu-

turistic feel, sterile, metallic, soulless. Second, it sounds good: The cheering masses, the grunts and groans of tackled players and the bounce of the ball give it character. It also plays well: When you've got the pill, you have excellent joystick control - but I'm not happy about defending. Perhaps it's just me but I had a bit of trouble getting players into positions to knock the stuffing out of opponents.

Future Basketball gives you the chance to get involved in the total package. First, you pick the name and colour of your team. Then you pick the division you want to play in. But most importantly you have money with which to buy and sell players. That's fun. Full player profiles are available with ratings on their speed, agility, shooting, passing and the all-important aggressiveness and strength.

Starting price for a player is around \$100,000. I'm hanging out for the day when I can buy my first million dollar man. I think I'll buy Bishop. He seems to be just the all-rounder my team needs. The ability to buy and sell affects your chances of getting to the top - just like in the real game.

As you complete games so the competition tables in four divisions change, adding great and continuing interest. When you've had enough for the day, you can save the results and come back to it later.

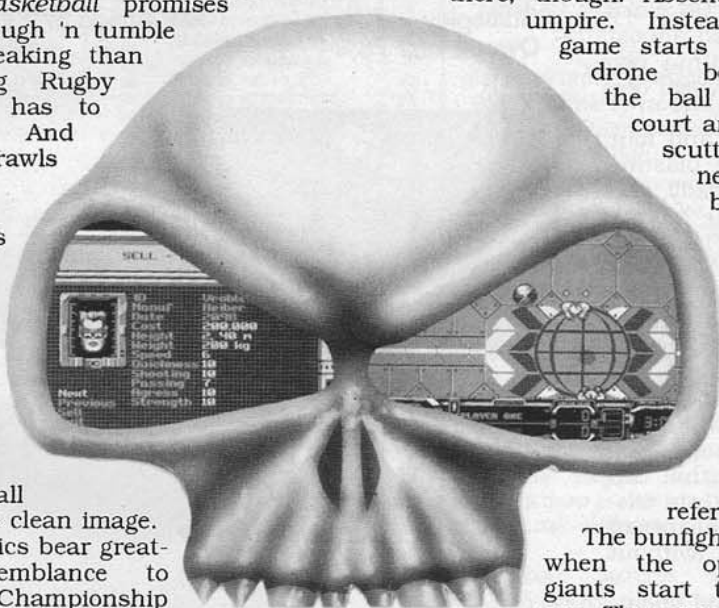
Future Basketball is fun, attractive and involves enough options to give you value-for-money. It's not a one-play wonder. It took a while to get started, but when I got the hang of the whole package of playing and managing the Sin Bin Boys I began to like the fellas. They weren't that bad really, just enthusiastic.

Ratings:

Graphics	85%
Sound	80%
Playability	80%
Addictiveness	85%
Overall	80%

Distributed by:

Pactronics
02 748 4700
RRP Amiga \$59.95



Quick Shots

CITADEL

Martin Walker, programmer of *Hunter's Moon*, *Rupert* and the *Toymaker's Castle* and musician of many games, has produced another totally original piece of 64 delight - *Citadel*. You control the Monitor MK IV remote armed vehicle into the Citadel. Your prime objective - penetrate to the heart of the complex and discover the "alien secrets within".

A thinking man's shoot-em-up, *Citadel* boasts excellent graphics, imaginative soundtracks and sound effects, and complicated puzzles as your MK IV blunders its way through the underground alien complex.

The Citadel contains eight increasingly difficult cities with beautifully drawn metallic backgrounds that almost cause you to forget about the traps. Stray within two spaces of these deadly doors and they open to reveal one of ten different types of nasties.

There are six types of mobile guard robots and four types of static guns, all of them content with blasting your faithful droid into millions of tiny bits. Luckily, you can persuade the enemy robots into helping the MK IV, though the use of a built-in capture probe. This is placed on the hostile robot and then your "hostage" can be placed in any of eight positions around the MK IV. These are useful for protection against the enemy. Unfortunately, however, you do not get to use the captured robot's weapons.

If the Monitor gets close to a trapdoor and it doesn't open, you're in luck. This means that the door will either be a weapon pod (four different types), an energy pod (which become rare in later cities), or a switch that can turn off one of any forcefields that bar your way into other areas of the complex. If these forcefields are not turned off when the monitor passes through, it's fried (without the secret herbs and spices).

Citadel has just the right mix of strategy and shoot-em-up to make it one of the most superb C64 games of all time, a definite must buy.

Damien Caynes

Ratings:

Graphics: 90%
Sound: 88%
Gameplay: 95%
Overall: 91%

Distributed by:

Ozisoft
(02) 313 6444
RRP C64 Disk \$39.95
Cass \$26.95

MiG-29

F U L C R U M

There's been a lot of interest in *MiG-29 Fulcrum*, the latest flight simulation from Domark software. In fact, some of our reviewers have actually been begging for the chance to try it out. The game features a variety of views, including the now-famous missile-eye view (or Slam-Cam) popularised in the news coverage of the Iraqi decimation. The game features multiple location scenarios, including a realistic desert campaign. Like most flight-sims, there's a steep learning curve, and the most frustrating part of the game is flying the wrong way for ages and missing all the action!

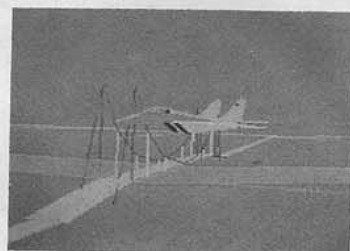
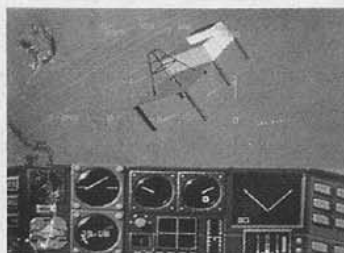
So far, I can guarantee that the graphics are good, though the sound is a little disappointing - and I can't wait to get into some action. For more details, check out the next issue.

Ratings:

Graphics 82%
Sound 69%
Gameplay 73%
Overall 78%

Distributed by:

Questor
(02) 662 7944
RRP Amiga \$79.95



How would GREG MUNRO look in a toga?
We'll probably never know. But here he steps back
into the days of ancient Rome to play...



Carthage is one of those epic war strategy games that I never have the patience to finish. If you like strategy, combined with arcade action in the form of a chariot ride at breakneck



speed, then take a look at *Carthage*.

The instructions provide interesting information about the Punic wars (all three), and somewhat less information on how to play. *Psygnosis* have an annoying habit of producing good games with inadequate instructions, and *Carthage* is no exception. They even omit to tell how to pause the game, which caused much unnecessary panic until I discovered that <SPACE> did the trick.

Gameplay revolves around zooming in and out on 3D fractal generated map (like *Dragon's Breath*). The three dominant Carthaginian (or Carthaginian, as the instructions have it) cities are shown as flags. Armies are helmets: gold for Carthage, silver for Rome. Zooming in, cities become towers, and individual army battalions can be seen, following the helmet of their general.

Your aim is to rewrite history by preventing Rome from razing Carthage to the ground, which Publius Scipio did extremely well in 146 BC, selling the whole population into slavery. Diogenes, your hero, must hurtle from town to town in his chariot with money to raise and equip garrisons

and mobile armies in order to halt the advance of the Roman legions.

Simply drag Diogenes' icon from one city to another, and the scene changes from the fractal map to a joystick controlled third-person 3D rear view of Diogenes' chariot, with appropriate sound effects.

Then it's Ben Hur time, complete with villain Messala in the form of Roman assassins with their own spiked chariots. You must stay on the road and avoid rocks and logs. Hitting these causes money to fall off the back, and wheels become wobblier until they fall off! The road goes up and down hills and around corners. The chariot slows uphill and Diogenes must whip the horses faster. Scenery is different on each road, seemingly corresponding to the terrain shown on the maps.

When other chariots are approached, the display changes to a plan view. Using your whip and wheel spikes, you must run the Roman off the road before he does the same to you. If you win, the display reverts to a rear view and you reach the city. If you lose, all your money is gone, and you must hitch a ride back where you came from. This arcade section is just as challenging and vital as the strategy part. One bump could lose the whole game if it means failure to reinforce a city in time.

Information about cities and armies is obtained by clicking on them to generate information icons. Garrison strength data includes the number of cavalry, archers, infantry, catapults, elephants, and wealth. Clicking on Diogenes' icon generates information enabling transfer of money between him and a city and creation or disbanding of armies.

Clicking the icon of a created army whilst in a garrison generates a full screen isometric view of the

stronghold. Four towers represent cavalry, archers, elephants, and infantry. From this screen you create and disband battalions.

My battle efforts so far have been disastrous, partly due to having to work out by trial and error things not explained in the instructions. A pity, because *Carthage* seems a clever and interesting game. It's a true war strategy game, where armies and individual battalions of specialist troops are raised, moved and disbanded, and terrain is taken into account in battles. It's harder to travel or fight uphill, and gaining the advantage of height is important. The main thing is to stop enemy battalions reaching your general, which so far I've failed to do!



Carthage is not primarily for action addicts, despite the chariot racing. It will be best appreciated by those like my mate Eric, who likes nothing better than spending his life moving cardboard armies round a hex map of Europe with a pair of tweezers! If you like strategy wargaming, *Carthage* is worth getting.

Ratings:

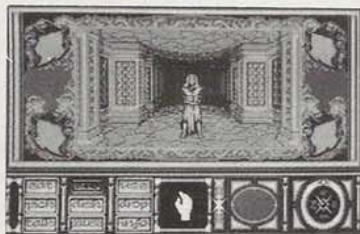
Graphics:	79
Sound:	70
Playability:	69
Addictiveness:	70
Instructions:	50
Overall:	80 to wargamers 69 to others

Distributed by:

Mindscape
02 899 2277
RRP Amiga \$69.95



GREG MUNRO is very impressed. In fact, he's almost beside himself with excitement, read on ...



Psygnosis claim "*Obitus* is a gripping combination of RPG and arcade action." For once they're being too modest. This is an excellent game, the best thing since sliced *Bard!* In fact, it makes *Bard's Tale* look positively primitive. Artwork is outstanding, among the best games graphics I've seen. Forward and Parallax scrolling is smooth and realistic, and gameplay is imaginative and fun.

I never studied Latin, but surely the name *Obitus* must mean "death", as in "Obituary". That's appropriate, since Wil Mason, your game alter-ego, is going to die many times before you find the solution to this epic adventure! Wil, a medieval history lecturer, arrives in ancient Middlemere after crashing his Volvo (typical!) into a ditch one dark and stormy night. Sheltering in a ruined tower, he wakes to find it no longer a ruin. All four doors are locked. The tower now stands in the middle of Falconwood, a dark, brooding maze of trees, like Mirkwood, from Tolkien's Middle Earth. It is April 1st, 1190 AD.

The recent history of Middlemere, before Wil's arrival, involved a gullible king, an evil wizard, and a civil war

between the king's four sons. One day, "a strange contraption" (presumably Wil's hapless Volvo) appeared in Middlemere. After initial dread, the four brothers each took parts of it. They now found ruling easier as their subjects were afraid of the contraption. Warring ceased and a truce was signed. "The remains of the machine were securely stored and the lords divided Middlemere equally into four shires. They were suddenly and strangely content to rule one quarter of the land each, although the shires remained heavily patrolled...just in case."

That's the scenario. Wil Mason encounters this "heavy patrolling" as he stumbles through the woods, mines, catacombs, castles, churches and abbeys of Middlemere's four shires, trying to find where he is and how to get home. He will meet knights, wizards, archers, mages, slaves, soldiers, partisans, wolves, trolls, and others. By observation, combat and trading, he'll find items useful to his quest, including weapons, treasures, amulets, scrolls, keys, torches, food, and potions, all depicted graphically.

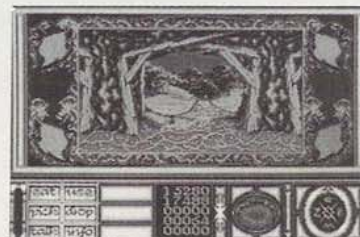
Wil must eat when his strength is low, and sleep when fatigued. A chronometer records date and time. A minute of game time is 10 seconds real time. Sleeping advances the clock 8 hours.

There are three types of scenario in *Obitus*: Maze, Parallax, and Interior sections. The booklet says: "maze sections utilise incredibly smooth forward-scrolling techniques to portray your first-person-perspective movement." In English, that means you see things as if you were there. Exactly like walking through Skara Brae in *Bard's Tale*, but with better artwork, smoother scrolling, and twice as many (8) movement direc-

tions. Movement is by joystick or mouse. Character/object interaction by mouse and icons. A direction indicator shows which way you're walking, and inventory items can be displayed and used. The "Info" icon provides full descriptions of items and characters.

Mazes I've encountered include two woods, a mine, catacombs, and dungeon. Mapping is essential. In the catacombs alone, I've mapped more than 200 chambers (including a whole tunnel system behind a secret door)! Underground, light dims as torches die, and increases near an entrance.

I've also visited part of two Interiors (both were castles), and mapped more than forty rooms. The view is third-person like parallax sections, but in 3D like maze sections. Wil runs between foreground and background as well as left and right.



Graphics are stunning! Explore tapestry-hung rooms lit by chandeliers, log fires, and windows. Open doors with keys obtained elsewhere. Meet nice people and kill them. But beware of traps, some of which are real D&D material!

Obitus is D&D, *Bard's Tale*, *Jinxter*, *Golden Path*, and *Dark Castle* rolled into one. A whole imaginary land on disk. The scale and attention to detail are impressive. Possibly the best interactive adventure epic yet. Recommended unreservedly!

Ratings:

Graphics:	98
Sound:	70
Playability:	89
Addictiveness:	95
Instructions:	55
Overall :	90

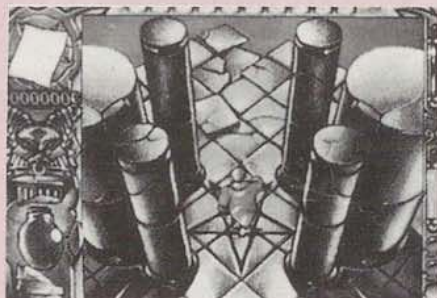
Distributed by:

Mindscape
02 899 2277
RRP Amiga \$79.95

MYSTICAL

Feel like a little
magic in your life?
GREG MUNRO takes
you on an enchanted
scroll ...

In *Mystical* you are the proverbial sorcerer's apprentice. No mere mishap with a stubborn broom this time, however! Instead, you've inadvertently scattered your master's scrolls and potions throughout several dimensions, and have been sent to get them back.



That's the scenario in the instruction booklet, but *Mystical* isn't really an adventure quest; just straight arcade stuff. It's a joystick and/or mouse controlled, vertical scrolling, *Ghosts and Goblins* type shoot'em-up for one or two players. The graphics and SFX are very good, and it's reasonably enjoyable to play.

Your magician advances vertically up the screen. His goal is to collect as many magic items as possible, while avoiding the various characters attacking him. He can use spells to destroy them, or simply get out of their way.

At the start of the game the magician is followed by another character called the Golem. If a two-player game is desired, before this character

stops flashing and disappears, player number two must press the fire button on the second joystick to signal that he wants to play.

The Golem is a magically animated being who trundles along after the magician to help him by jumping on the nasties and crushing them. When the Golem becomes weak (less than ten life points), he turns into a mole and digs himself into the ground. After he regains energy, he becomes a Golem again and rejoins the magician.

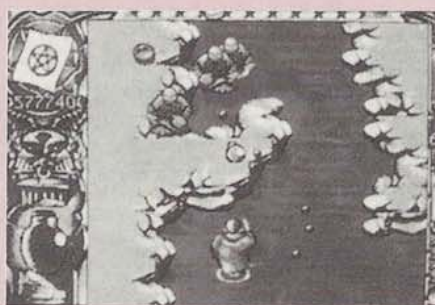
Some of the magician's attackers are quite cute. In fact, you get the distinct impression that you are on the wrong side. There are fresh faced young girls with baskets of berries that they throw at you. There are youths in white; Ent-like walking trees; yokels with pitchforks; and bible throwing monks. (Wonder if they ever tried reading it?) On the other hand, there are also some evil looking ghouls.

There are 24 scroll and potion spells to pick up and use. Graphics to the left of the game screen show what the currently selected spell is. "Pouches" at the top indicate how many you have altogether. You toggle through these with the spacebar, the selected spell being highlighted in red. When you pick up a spell by moving over it, you must immediately press <SPACE> to store it, otherwise the magician will automatically read it out or drink it.

There are two ways to cast a spell: either by passing over it and not storing it, or by selecting a spell from among those stored and then pressing any number on the numeric keypad or <ENTER>. Some of the effects of spells are quite amusing, and the graphics and sound effects are excellent. "Polymorph" turns attackers into croaking frogs. "Fear" makes them run away, and "petrification" turns them to stone and crumbles them (remember Queen takes Castle in *Battle Chess*?) Some spells, such

as "shoot," "metamorphosis," or "fire balls," are best used against individuals. Others are the *Mystical* equivalent of a smart bomb, useful for dealing with large numbers of foes at once, such as "imprisonment," which entraps everything on the screen in cages, or "earthquake," which causes them to disappear into cracks in the earth.

If your magician makes it to the end of a stage (there are three stages in each of four worlds), the Great Wizard's crystal ball comes down and teleports you to the next. In between stages, however, you access the inventory screen, containing some nice pictures of your potions and scrolls.



This enables you to organize your pouches for the next stage.

At the end of the first stage you also access the copy protection screen, which shows pictures of all 24 spells. You are given a set of coordinates, and must choose three spells, corresponding to a series of numbers under those coordinates on a sheet included in the box.

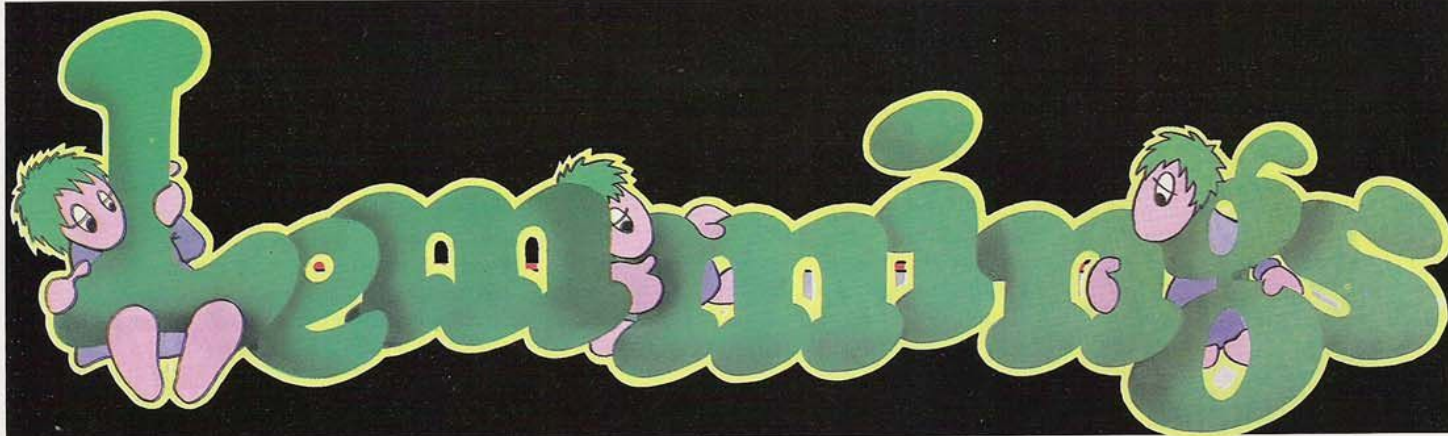
Overall, *Mystical* is an enchanting little game, and quite a lot of fun. It's not a world beater in any department, but I like it enough to keep on playing - at least for a while.

Ratings:

Graphics:	80
SFX:	75
Playability:	70
Addictiveness:	70
Overall:	70

Distributed by:

Questor
02 662 7944
RRP Amiga \$69.95



Tumbling, rumbling, stumbling and fumbling - they're everywhere. Conservationist PHIL CAMPBELL does his bit to save hundreds of cute furry creatures from destruction.

I know a lot about lemmings, having once seen a Monty Python skit on the subject. I have also consulted the *New World Encyclopedia*, which explains that Norwegian Lemmings are typically 12 cms long, yellowish brown, and undertake mass migrations when their population exceeds the available food supply.

Common knowledge. But for some reason, nobody ever realised that these small mustard coloured rats were the stuff brilliant games were made of. Until now.



The aim of the game is simple, as well as ecologically sound - Save the Lemmings. Hordes of them pour onto a computer screen full of deadly hazards and obstacles, and it's up to you to herd them safely to a small exit leading to a safe new home with plenty of good tucker.

The only tools at your disposal are the Lemmings themselves. A control panel along the bottom of the screen shows a range of special Lemming

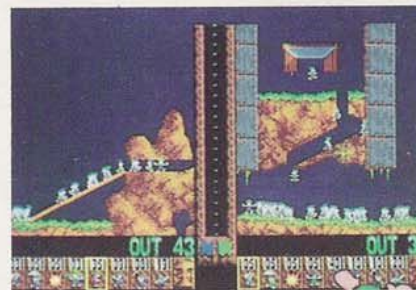
abilities. Click on one of these, then on the Lemming of your choice, and he'll get to work. There's a climber icon, a floater, a builder, a number of diggers, and most important of all, a blocker. Sound confusing? Well, yes - but not for long.

Imagine for a moment there's a deadly drop on the left of the screen, and a vertical cliff face on the right. When the brainless Lemmings come face to face with the cliff wall, they'll turn around and head for the chasm, and certain death. We need a blocker - so click on the blocker icon with the mouse, wait until the first Lemming approaches the hazardous drop, then click on him. If your aim was good, he'll suddenly stop and put up his arms, blocking all his little mates.

Now for the obstacle. Maybe a digger can tunnel his way through the cliff face - a good idea if it's not too thick. Or maybe it would be better to activate a builder who will construct a stairway of small bricks. That's a good option if the wall is not too high. Once the path is constructed, the rest of the Lemmings will follow blindly - so make sure the path is safe. Often a climb is followed by a sharp drop back to ground level. If it's too far, you'll see your little guys smashing themselves to pieces as they hit the bottom. The solution? A blocker at the top, while you equip a special "floater" with an umbrella to get him safely to the bottom. Then he can build a stairway back up to his friends.

The first few levels of the game are easy. From then on, the going gets tough, and you'll really need to use your resources well. Usually, the number of times you can use each icon is limited. To add to the excitement, you're playing to a strict time limit too.

Lemmings is unique. The graphics are delightful - each level has a fasci-



natingly detailed backdrop, while each tiny Lemming demonstrates an amazing amount of character. Above all, the concept is simple, and the game is lots of fun. In fact, this is the first game for ages that I really couldn't switch off. In fact, I'm itching for another game already.

Distributed by:
Mindscape
02 899 2277
RRP Amiga \$69.95

Believe it or not, this is the first car MIKE FISCHER has ever driven. Lucky it comes with a digitised co-driver!

So, you're a fan of the car rallying scene? You like nothing more than to see a car hunkering around a tight bend, the steering on full lock, while the whole plot drifts sideways with the tyres shuddering and squealing? Or maybe you admire the close cooperation between the driver and his co-driver as they negotiate a tricky section of the course, the co-driver barking instructions as the driver furiously swings the car through the bends?

Gremlin Graphics Software Ltd. has produced just the game for the rally enthusiast. There's a choice of countries to go rallying in - in England you'll encounter rain, in Mexico you'll have to drive through the occasional sand-storm, and in Finland the snow will keep you busy. And if all the rain, sand or snow gets too much, pressing F1 will get the wipers going - ah, so that's where the track is!

Begin with a practice session - you'll need all the practice you can get for the up-coming rally. Pressing the



'fire' button starts the engine of your Celica; pushing the joystick forward increases engine revs, and pulling it back decreases the revs and also functions as a brake.

When the count reaches zero, change into first gear by pushing in the 'clutch' ('fire' button again) while simultaneously pushing the joystick forward. Gear-changes are a little tricky at first, but it doesn't take long

to get the hang of them. Your laps are timed, and crashes, 'jumped starts', etc., incur time-penalties.

The great bit is that as you enter in to the mood of the game, it's not that difficult to actually sense your car sliding sideways around the bends - the dull thuds as you knock down the track-side marker posts or the shrubbery help to complete the picture. And as well as the revving engine, you'll hear the car's chassis scraping as you come into contact with the kerb.



As you race your way around the course, you have to keep away from the trees and buildings surrounding the track (England), or the stone monoliths and cacti (Mexico), or the pine trees and snow-banks (Finland). If you have the misfortune to leave the track (it's not that hard to do) and hit one of these larger obstacles, then you'll find yourself looking out through a shattered windscreen at whatever you'd hit. Not to worry, though, because the computer puts you back onto the track exactly where you left it - with a new wind-screen!



Well, with all that potential for leaving the track and crashing (rain, sand and snow don't help the tyres grip, either), you'd reckon that you



could do with all the help you could find, right? Right - the good bit is that your car comes complete with a co-driver who tells you in digitised speech whenever a right- or left-hand bend is coming up. This is a really handy thing if you're coming over a blind crest and you haven't got a clue where the road goes. "Left... hard left then hard right..."

Yep, it's just the sort of help you need.

But he's not a perfect co-driver, though; he doesn't always tell you about next bend. The really neat touch with this package is that you can 'create' your own co-driver for whatever track you happen to be on. Did he fail to let you know about that hard left-hander that saw you end up in a snow-bank? No problem - going to the 'Co-Driver Preparation' item on the menu allows you to insert co-driver instructions at the point on the track where you want the message presented.

All in all, the Toyota Celica GT Rally could be just the ticket to get the blood pumping if you like a good rally. Graphics are great, sound is good, and the action is just right.

Ratings:

Graphics	80%
Sound	77%
Gameplay	78%
Overall	79%

Distributed by:

Mindscape
02 899 2277
RRP Amiga \$59.95

Adventurers Realm

by Michael Spiteri

Welcome to Adventurers Realm, the section of the magazine where we and everyone else tackle your adventure game problems. Not only adventure games, but role-playing games and wargames as well!

If you are stuck, write in for one of the many free hint sheets available (see list). Still stuck? Send your specific problem to me (adventure & wargames), or Kamikaze Andy (rpg's). If we cannot help you, then your problem will be displayed among these pages for all eyes to see.

If you can help someone, send in your hints and tips, or if you want to chat, whinge or spread some rumours, these pages are for your thoughts as well.

The addresses to write to: **For adventure games:**
Adventurers Realm
12 Bridle Place
Pakenham Vic 3810

For role playing games:
Realm's RPG Dungeon
P.O. Box 315
Maddington WA 6109

**ALWAYS ENCLOSE A S.A.E
WHEN WRITING TO THE REALM**

Realm Chat

Adventure BBS Talk

Rod Gasson is making his BBS - Thistle Dome more adventure oriented. His service is available 24 hours a day, 7 days a week, modem speeds 300 to 2400 baud. The number: (08)3222716.

Meanwhile, the truly official Realm BBS is Island Bulletin Board in Victoria. I'll logon once a month to try and answer your queries, and there are heaps of other adventurers willing to help out, as well as hints to download. Also operating 24 hrs a day, 7 days a week, the number is (03)7423993.

Wanted! Debate Ideas!

Yes folks, the ol' Realm debate is back, but I am going to need some topics to get people sparked up. Please send your ideas in as soon as possible!!

CLEVER CONTACTS

The list of clever contacts grows longer this month with addition a few more willing volunteers. Always enclosed a stamped addressed envelope when writing for help to a clever contact.

Of course, a big thank you to our clever contacts for a wonderful job.

Stuart George of 66 Sharon Street in Springvale, Vic 3171, can offer help in the following games:

Pool of Radiance, Zak McKracken, Bards tale I,II,III, Wonderland, Fish, King Solomon's Mines.

S. Rawlings of 6 Balder St, Doonside, NSW 2767 can offer help in the following games: Bastow Manor, Drak, Curse of the Mad Mummy.

Mail to Adam Breen can be directed to P.O.Box 1577, Toowong, Brisbane, Qld 4066, for help in:

Bards Tale I,II, Ultima 4, Champions of Krynn, Hitchhikers Guide, Larry I, Zork I,II, Millennium, Dungeon Master, and Leather Goddesses.

The Official Adventurers Realm Hint Book

is now on sale, at the ridiculously low price of \$9.00. The book contains detailed hints and tips to over forty new & old popular adventure games. Available from most newsagents and computer outlets, or via mail order.

The Dungeon by Kamikaze Andy

It's really been a long hot summer. Hot as in temperatures, and hot as in new software for the Amiga.

From MicroProse and Paragon Software comes *Megatraveller: The Zhodani Conspiracy*, based on the pencil-and-paper RPG of the same name. It's the usual sci-fi scenario, with lots of space combat, futuristic equipment, and aliens to defeat. Already Paragon is preparing *Megatraveller II* for our consumption later in the year.

MicroProse has another two RPGs coming out soon. One is *Starlord*, by Mike Singleton (creator of *Midwinter*) and based on his own pencil-and-paper RPG creation in the early 1980s. The other MicroProse RPG is *Darklands*, supposedly set in the German Middle Ages with lots of chivalry and damsels in distress.

No sooner has *Ultima VI: The False Prophet* finally made its way to the Amiga, producers Origin plan on having *Ultima VII* out this time next year.

The first game, *The Savage Empire*, will be out shortly and will feature the interface used in *Ultima VI*. Set in the prehistoric Amazonian jungles of Eodon, you are sent by Lord British to recover a precious moonstone and foil the plans of a mad scientist trying to take over the world. Along the way, you can rescue a lovely Amazon princess, dance with dinosaurs, and act like a savage.

The second of the *Worlds of Ultima* series will be released on the Amiga by the end of this year, and will be a Jules Verne type of scenario. It is supposedly set in Mars, but with a 18th Century Classic Victorian twist (just like Paragon's *Space 1889* RPG, also out soon for Amiga). Unfortu-

nately for C64 owners, *Worlds of Ultima* will not be appearing for their machines. It is also reported that *Ultima VI* will be the last 8-bit *Ultima*, so I guess it's time to upgrade to a 16-bit Amiga.

For all you Wizardry fans, be prepared for Amiga and C64 versions of *Bane of the Cosmic Forge*, Sir-Tech's attempt at a "newer kind" of Wizardry. Although set in the Wizardry world and featuring first-person 3D views (like its other Wizardry games but with more detail), *Cosmic Forge* is NOT Wizardry VI. Indeed, it looks a little bit like *Dungeon Master* actually, with full mouse and icon control.

Speaking of *Dungeon Master*, those of you who have already finished *Chaos Strikes Back* will be pleased to hear that *Dungeon Master II* is on its way, and will possibly

appear on Amiga first, early next year!

From SSI comes *Eye of the Beholder*, yet another *Dungeon Master* lookalike, with a similar graphics style and icon interface. *Beholder* is set in the AD&D Forgotten Realms city of Waterdeep, and your quest is to discover the mysterious goings-on underneath the city's vast dungeon. *Beholder* is also the first of SSI's "Legends" series, and other games in this series will also utilize the same system. The graphics are very colourful and detailed, and the Amiga only version should be out very shortly.

Finally, have you heard that Interplay and Infocom have merged to form Intercom, and their first product together will be a simulation of the telephone industry. It's to be called *SimPhone*, where you, the player, takes control of every aspect in running a huge telecommunications conglomerate. There are plans to do other simulations soon, like

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Realm Of Darkness is still the name of the game, and the mirror is posing a serious problem. Does anyone know what to do?

Sarv Engelhardt of Hilton in WA is terrible troubled by *Drakhhen*. How does he get the 9th gem? Any takers?

Stuart George (Springvale, Vic), sender of many hints and tips, requires a few hints and tips to get himself out of a little mess. In *Gold Rush*, what should he say to the man in the Green Pastures hotel, and what does he do with the mule once it has been branded? Then in *Colonel's Bequest*, Stuart has finished the game but did not come across the location of most of the bodies. How does one get to the cellar, and what happens when the fountain is turned on?

Arazok's Tomb has been bothering **Sherrie, Bev and Jan**. Their numerous problems include being unable to get to the castle without getting killed by the dragon in the water, unable to open east/west doors in Zambambe (prior to reaching red doors), unable to find projector to put in the lab, as well as dying of thirst, and choking on blood when the teyrians attack. Sound pretty nasty!!

Oxo would like to know how to get into the Porsche in *Corruption*, or even open the safe!!

Once again the Pro-Pack adventurers claim another victim.

Dennis Wyers of Drouin in Vic would love to know how to get through the maze in the *Temple Curse* (after the Sand Dungeon).

Beverly the Beaver is still trying to track down any help with the mysterious game *Venom*. Some slimy snake out there must have some news for Bev.

Michael Bathols of Narrogin in WA is stuck in *Not a Penny More, Not a Penny Less*. He wants to know how to use the taxi that sits outside Paddington Station. Then in *Search for King Solomon's Mines* (Softgold), how does he really escape from the heart hunters after cutting free.

Peter Colelough of Hamilton in NSW is another adventure stuck in *Arazok's Tomb*. He has got past Zud and can stroll between both cities,

but does not know what to do next.

Brian Blackwell becomes our second victim this month of the Pro-Pack adventure series. In *Temple Curse*, what do you need to enter the porthole, and then in *Last Planet*, how do you see the drawing and get the rope?

Adam Breen of Toowong in QLD is having serious brain problems with *Legend of the Sword*. How does he get past the giant worm, where is the leprechaun pie, and what is necessary for entry into the castle?

Noel McAskill (Ravesby, NSW), is currently stuck in *Operation Stealth*. He has been thrown overboard, tied to a stone, freed using the bracelet, but unable to rescue the girl who was also thrown overboard. Any takers for this tricky one?

Adam Pride of Elanora Heights, NSW, would really like to know how to get through the gate/door in the castle of light in the game *Phantasia III*. Picking the lock doesn't seem to work.

Finally, **Scott Pitcher** of Reservoir in Vic asks the following questions: How do you start the plane in *Valkyrie 17*? How do you get past the gnome in *Wizard and the Princess* (MS: I don't think there is a way of passing the gnome without him stealing something!), and in *Asylum*, how does Scott stop the exterminator from fogging the pestilence.

General Hints & Tips

Stuart George of Springvale (Vic) send in the following hints:

Game: Gold Rush

Help: Take the family photo from the photo album. At the start type "SELL HOUSE" and wait for the salesman to come. Put some flowers on your mother and fathers grave. Go by way of Panama. There are three paths through the jungle that has the plant with the pink branches. Get your money from the bank.

Game: Colonel's Bequest

Help: Open the visor on the armour. Move the armories upstairs and the clock and the mirror downstairs. You need the cane to ring the bell. Hang around the statue of Dijon at 10:45 - 11:00 to see a good fight. Use the monocle to examine things.

Game: Heroes of the Lance

Help: To defeat the Khisanth, put Goldmoon at the front and cast. Deflect dragon breath and hit it with Goldmoon's staff.

Help, Help & more Help or the Smart Adventurers Dept.

If you were a troubled adventurer a couple of months back, then there is a good chance your misery will be relieved this month, as many very smart adventurers come to the rescue. A big thankyou to all who contributed to this section.

Game: Shadowgate

For: Richard Vaughan (Jan issue)

From: Noel McAskill

Help: Take only wand and torch across the rope bridge. Forget about the door in the well room and the hobgoblins. The key to the top left door in the banquet room is in the globe in the study.

Game: Leisure Suit Larry II

For: Adrian Smythe (Nov issue)

From: Turrigan

Help: On the cruise, go into your room by going right. Get the fruit from the nightstand and go back out. Find the barber shop and sit in the chair. Go back to your room and change into the swimsuit. Go to the pool and put the sunscreen on. Fall into the pool and dive. Get the bikini top and climb the ladder. Lie down and ignore whoever bothers you. Wait a while and go back to your room. Save now. Change into your leisure suit, go to the bridge and pull the blue switch on the control panel behind the captain. Jump into one of the lifeboats. When you start to drift away, wear the wig.

Game: Leisure Suit Larry III

For: Adrian Smythe (Nov issue)

From: Turrigan

Help: There is no easy way through the jungle and you must make a map. I go through by saving the game at each T junction, and reloading if it is a dead end. You will need to store some tap water in a wine bottle so you won't die.

Game: Zak McKracken

For: David Marjanovic (Oct issue)

From: Turrigan

Help: To get the lighter you must be on the plane. Walk to the toilet and enter. Pick up toilet paper, and use it in the sink. Push the call button and walk out. Walk to the microwave and put the egg into in. Turn on microwave and walk to first seat. Pick up the cushion.....

Game: Shifting Sands

For: Mr J.W.Knight (Oct issue)

From: Michael Bathols

Help: To take the paddle you must have with you the wicker basket. Enter Catch Cobra. You now be able to take the paddle and also take the basket with the cobra.

Game: Zak McKracken

For: Andrew Corbin (Jan issue)

From: Stuart George

Help: The drawing for the sphinx leg is in the map room of the great chamber on the statue. The bum has the whiskey, and the scroll is in the eye cave (left).

Free Hint Sheets

The following hint sheets are free!! You can select up to four different hint sheets of your choice from the list below.

Guild of Thieves, Jinxter, Pawn, Fish, Maniac Mansion, Uninvited, Bards Tale I,II,III, Zork I,II,III, Hitchhikers Guide, Faery Tale, Castle of Terror, Borrowed Time, NeverEnding Story, DejaVu, ZZZZZZ, Dracula Pt2, and Hobbit.

Make sure you enclose a stamped addressed envelope, or you will never ever see the hint sheets!!

Write to: Free Hint Sheets

12 Bridle Place

Pakenham VIC 3810

NOTE: Next month hint sheets Castle of Terror & ZZZZZZZ will be dropped off to make way for newer hint sheets - so grab em' while you can.

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